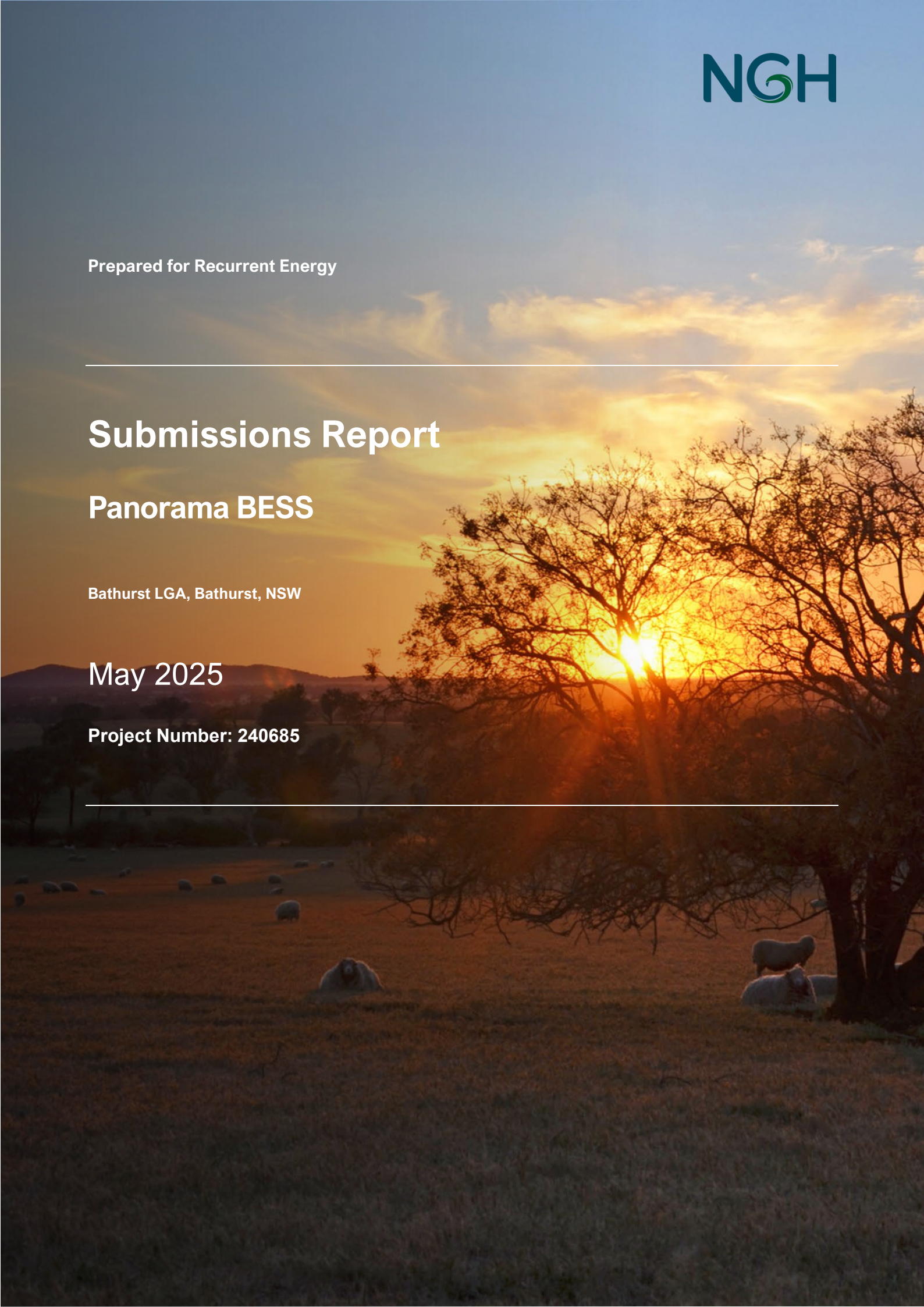

Prepared for Recurrent Energy

Submissions Report

Panorama BESS

Bathurst LGA, Bathurst, NSW

May 2025

Project Number: 240685

Document verification

Project Title:	Panorama BESS
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Draft V1.0	31/03/2025	M. Wyburn	B. Marshall
Draft V1.1	17/04/2025	M. Wyburn	B. Marshall
Final V1.0	15/05/2025	M. Wyburn	B. Marshall

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We acknowledge the traditional owners of this land and pay our respect to Elders past, present and emerging. We recognise that the First Nations peoples of Australia have traditionally managed the resources of this land in a sustainable way, and that they are the original custodians of the Australian environment.

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Acronyms and abbreviations

AHIMS	Aboriginal Heritage Information Management System
BDAR	Biodiversity Development Assessment Report
BESS	Battery Energy Storage System
CEMP	Construction environmental management plan
DPE	(Former) Department of Planning and Environment (NSW) (now DCCEEW and DPHI)
DPHI	Department of Planning, Housing and Infrastructure (NSW) (formerly DPE)
E	Endangered
EEC	Endangered ecological community – as defined under relevant law applying to the proposal
EIA	Environmental impact assessment
EIS	Environmental impact statement
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999* (Cth)
EP&A Act	*Environmental Planning and Assessment Act 1979* (NSW)
ESD	Ecologically Sustainable Development
GIS	Geographic information system
ha	Hectares
Heritage Act	*Heritage Act 1977* (NSW)
IPC	Independent Planning Commission
km	kilometres
kV	Kilovolt
LALC	Local Aboriginal Land Council
LEP	Local Environment Plan

LFP	Lithium iron-phosphate
LGA	Local government area
LVIA	Landscape and Visual Impact Assessment
m	Metres
MW	Megawatt
MNES	Matters of national environmental significance
NSW	New South Wales
NPW Act	*National Parks and Wildlife Act 1974* (NSW)
PHA	Preliminary Hazard Assessment
SEARs	Secretary's Environmental Assessment Requirements
SISD	Safe Intersection Sight Distance
SSD	State Significant Development
TfNSW	Transport for NSW
TIA	Traffic Impact Assessment

Executive summary

Background

Panorama Battery Energy Storage System (BESS) (the Project) is located in the Bathurst Local Government Area (LGA), approximately 2.5 kilometres (km) west of the suburb of Robin Hill and 5.8km southwest of the regional city of Bathurst. The Project is proposed on two freehold lots (the Involved Lands), zoned RU1 – Primary Production under the *Bathurst Regional Local Environmental Plan 2014* (Bathurst LEP).

- Lot 2 DP864272
- Lot 521 DP603541

The Project Development Site is located within the eastern extent of Lot 2 DP864272 and adjacent to the existing Transgrid substation located on Lot 521 DP603541, and consists of low grade, mostly cleared vegetation. The Project is bounded by the Mid-Western Highway to the south and the Mitchell Highway to the north, both sealed two-lane roads.

The Panorama BESS Project is classified as State Significant Development (SSD) under the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act). The Panorama BESS Environmental Impact Statement (SLR, 2024) and supporting appendices set out the description of the Project as a BESS with a capacity of up to 100 Megawatts (MW) / 200MW hours (MWh) with associated ancillary infrastructure. The EIS included the Project's statutory context and information required to assess its potential economic, environmental and social impacts.

The key environmental impacts investigated in the EIS were:

- Noise and vibration
- Biodiversity
- Aboriginal and European Heritage
- Traffic and access
- Visual amenity
- Water quality
- Land quality
- Land Use Conflict
- Air quality
- Social and economic
- Waste Management
- Hazard and Risk

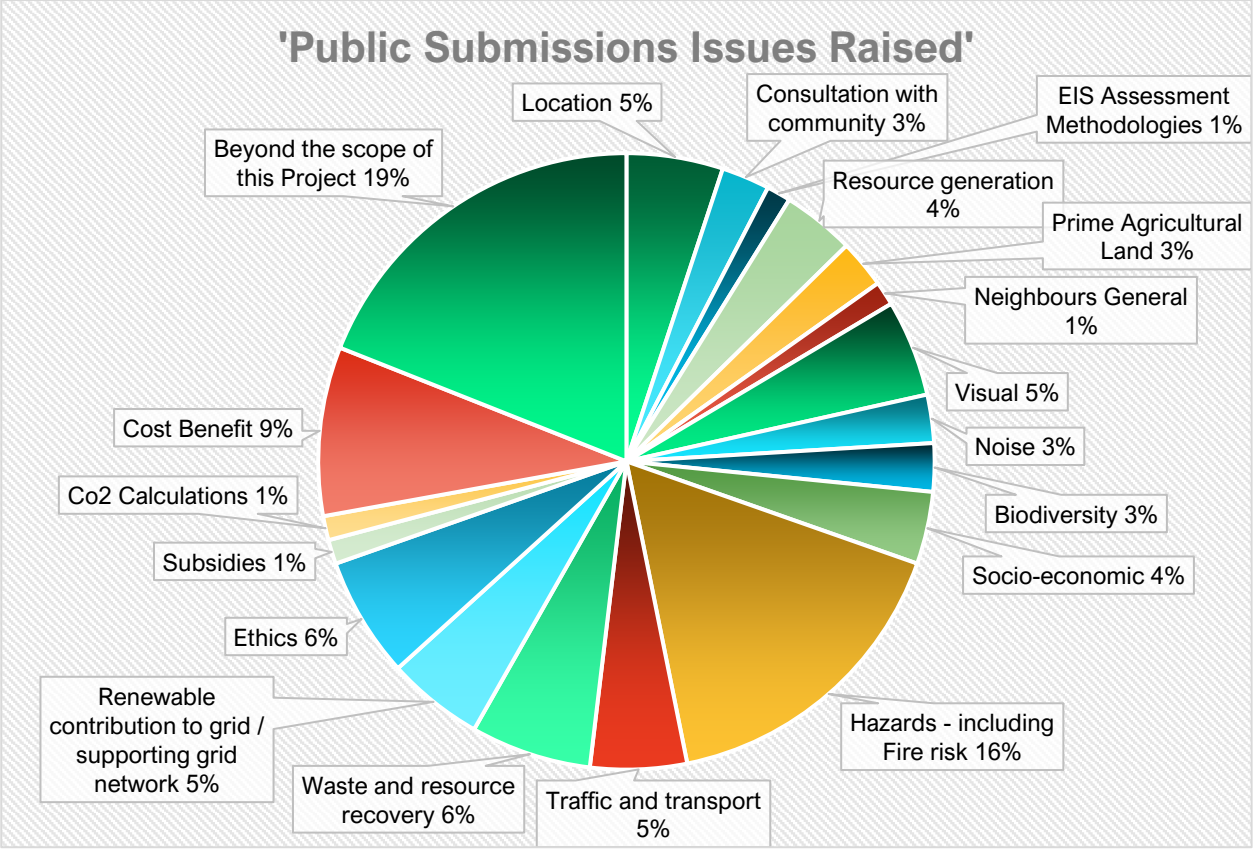
The EIS and supporting appendices were placed on public exhibition from Wednesday 24 July 2024 to Thursday 22 August 2024:

Link: Panorama Battery Energy Storage System | Planning Portal - Department of Planning and Environment

Community and agency submissions to the EIS

During the EIS public exhibition period, submissions from the public, public authorities and other interested parties in relation to the Project were invited. Submissions opposing the Project most frequently cited the Project's impact on hazards and risks, cost benefit. Adverse impacts on ethics and waste / recovery were the next most raised issues in objections, followed by traffic and access and visual amenity. Submissions in support of the Project most frequently cited the socio-economic benefits of the Project to the community. The Project's positive contribution to climate change mitigation was the second most frequently cited issue in submissions in support of the Project. The number of submissions and issues raised within them are summarised below.

Public and community group submissions	• 4 letters of support • 2 general comments • 20 objections
Government agencies providing comments:	• Biodiversity Conservation and Science Group (BSC) • NSW Department of Climate Change, Energy, the Environment and Water • Department of Primary Industries (DPI) Agriculture • NSW Fire and Rescue • NSW Rural Fire Service • Heritage NSW – Aboriginal heritage • Transport for NSW (TfNSW) • DPI Fisheries • DPE Hazards
Council submission providing comments:	• Bathurst Regional Council (BRC)



ES Figure 1 Issues raised most often in public submissions

This Submission Report has been prepared to analyse the issues raised in public and government agency submissions and explain what actions the Applicant has taken since the EIS was publicly exhibited in relation to them. It includes a:

- Specific response to each issue raised in the public submissions.
- Specific response to each government agency issue raised.

The issues raised in the public submissions are summarised in the table below, categorised by Department of Planning, Housing and Infrastructure (DPHI) guideline category below and are addressed in this order.

ES Table 1 Issues raised in public submissions (and number of times raised), categorised by DPHI guideline category

The Project itself	• Location (2)	
Procedural concerns	• Community engagement process (2)	• Environmental assessment methodologies (1)
Environmental, social and economic impacts	• Impact on traffic and roads (5) • Agricultural Impact (2) • Visual Impact (4) • Socio-economic impacts (7) • Dust impacts (0) • Noise impact (3) • Health and wellbeing (1) • Biodiversity impacts (2)	• Fire hazards (17) • Land and water impacts (1) • Waste and decommissioning (11) • Local climate impacts (2) • Resource use (5)
Planning Instruments	• N/A	
Justification	• Justification (10)	
Beyond the scope of the Project	• Beyond the scope (19)	

Key Project outcomes

In consideration of community and agency feedback

In response to the submissions received, several aspects of the Project have been updated to strengthen the Project's mitigation strategies and provide greater certainty with regard to the management of impacts. These include:

- Visual screening by way of metal perforated sheets have been proposed along the western, northern and eastern boundaries of the BESS Facility
- Updated technical reports including traffic, visual and land contamination have been prepared in response to submissions received and are appended in Appendix D if this Submissions Report.

Project amendments

Since the exhibition of the EIS, the Applicant has decided to make specific changes to the battery technology and Development Footprint that will improve the Projects overall performance and constructability. The changes are detailed in full in the Panorama BESS Amendment Report (NGH, 2025b) submitted with this Submissions Report. The changes are summarised as follows:

1. Change in technology of the battery energy storage from the Solbank 2.0 system to the Solbank 3.0
2. Increase in the Development Footprint to facilitate civil battering and realignment to improve safety and stability.
3. Implementation of a metal perforated sheets for visual screening along the western, northern and eastern boundaries of the BESS Facility

The updated specialist reports prepared to supplement the Amendment Report are:

- Aboriginal Cultural Heritage Assessment
- Biodiversity Development Assessment Report Waiver
- Preliminary Hazard and Bushfire Assessment
- Noise and Vibration Impact Assessment
- Landscape and Visual Impact Assessment

All other Project infrastructure elements remain as presented in the EIS.

Consultation activities have communicated relevant changes to key stakeholders including Bathurst Regional Council and Transport for NSW.

Overall justification for the Project

The justification for the Panorama BESS remains as set out in the EIS (SLR, 2024). These include the Project's key objectives as set out below:

- Increase local employment and investment opportunities during construction;
- Add significant benefits to the NSW electricity grid because it allows for the dispatch of energy in accordance with market demand to assist in load leveling and grid support to balance the natural fluctuations in electricity demand throughout the day and reduce congestion on the local grid;
- Play an important role in providing stability to the NSW energy network by charging up during the day when renewable energy generation is high and then providing that power back to the grid at night to support high demand; and
- The BESS is located along a major transmission route which is in line with the Federal Government's direction to improve the affordability and security of the national energy market while also delivering on international climate commitments.

These objectives are considered achievable.

The key community values and concerns, the Project's response to these matters are summarised below. The broader policy context of the Project and the Project's ability to deliver strategic benefits in this context are also provided. These demonstrate a Project which is:

- Responsive to local matters
- Significant in terms of local economic benefits
- Important in the renewable energy transition

The Amendment Report (NGH, 2025b) provides an updated justification for the amended Project. It concludes that the specific changes to the battery technology and Development Footprint. The Project as amended will retain the benefits set out above as well as improve the constructability and overall viability of the Project to and store and dispatch energy.

1. Introduction

1.1. Applicant details

Company name	Panorama BESS SubCo Pty as trustee for the Panorama BESS Unit Trust
ABN	38 905 415 690
Address	Citic House, Level 4, Suite 4.02, 99 King Street. Melbourne, Victoria, 3000

Recurrent Energy, owner of Panorama BESS SubCo, stands as one of the largest and most geographically diverse platforms for the development, ownership, and operation of utility-scale solar and energy storage projects worldwide. Operating as a subsidiary of Canadian Solar Inc., Recurrent Energy serves as the global development arm and power services business for Canadian Solar.

The local team are experienced in the deployment of large commercial solar and BESS installations in Australia and globally.

1.2. Location and Project outline

Panorama Battery Energy Storage System (BESS) (the Project) is located in the Bathurst Local Government Area (LGA), approximately 2.5 kilometres (km) west of the suburb of Robin Hill and 5.8km southwest of the regional city of Bathurst. The Project is proposed on two freehold lots (the Involved Lands), zoned RU1 – Primary Production under the *Bathurst Regional Local Environmental Plan 2014* (Bathurst LEP).

- Lot 2 DP864272
- Lot 521 DP603541

The Project's objectives are to:

- Increase local employment and investment opportunities during construction;
- Add significant benefits to the NSW electricity grid because it allows for the dispatch of energy in accordance with market demand to assist in load leveling and grid support to balance the natural fluctuations in electricity demand throughout the day and reduce congestion on the local grid
- Play an important role in providing stability to the NSW energy network by charging up during the day when renewable energy generation is high and then providing that power back to the grid at night to support high demand; and
- The BESS is located along a major transmission route which is in line with the Federal Government's direction to improve the affordability and security of the national energy market while also delivering on international climate commitments.

The Project Development Site is located within the eastern extent of Lot 2 DP864272 and adjacent to the existing Transgrid substation located on Lot 521 DP603541, and consists of low grade, mostly cleared vegetation. The Project is bounded by the Mid-Western Highway to the south and the Mitchell Highway to the north, both sealed two-lane roads.

The project as described in the EIS included:

- Installation and operation of a SolBank BESS including battery enclosures, inverters, and transformers on a concrete pad and benching of the site to level the foundation for each Project component
- A 132 kilovolt (kV) underground cable connecting a 33/132kV switch building to the existing substation
- Formalisation of existing access from Mid-Western Highway and existing access road within Lot 2 DP864272
- Operations and maintenance (O&M) building
- Stormwater management infrastructure, lighting, and security fencing; and
- Construction laydown area

The expected lifespan of the project is 20 years, noting that State Significant Development approvals are considered indefinite; that is the project could be refurbished and continue operation past this 20 year timeline.

1.3. EIS preparation and exhibition

The Panorama BESS EIS was prepared in accordance with the Project-specific Secretary's Environmental Assessment Requirements (SEARs). The key environmental issues investigated in the EIS were noise and vibration, biodiversity, Aboriginal heritage, traffic and access, visual amenity, water quality, land quality, land use conflict, air quality, social, economic, waste management, hazard and risk and European heritage. Cumulative impacts were considered relevant to many of these areas. Detailed safeguards and mitigation measures were developed and included as commitments of the Project.

The Panorama BESS EIS and supporting appendices were placed on public exhibition from Wednesday 24 July 2024 to Thursday 22 August 2024:

Link: Panorama Battery Energy Storage System | Planning Portal - Department of Planning and Environment

During this time, members of the public and government agencies were invited to review the proposal and its assessment of impacts in full and make submissions.

1.4. Relationship to other activities

An Amendment report (NGH, 2025b) is relevant to the Project and has been prepared concurrent with this Submissions report. The proposed amendments to the Project involve a change in technology of the battery energy storage from the Solbank 2.0 system to the Solbank 3.0 system, and an increase in the Development Footprint to facilitate civil battering and realignment to improve safety and stability of the Project while reducing civil costs.

The updated Project Description, justification for and assessment of Project changes is detailed in the Amendment report; (NGH, 2025b).

1.4.1. Land ownership, use, agreements and subdivision

The areas required for the operational BESS will be leased for the life of the Project. The existing land use of cropping is likely to continue with the involved lands surrounding the Development Site. No subdivision is proposed as part of the development.

1.4.2. Connection to electricity network

The Project requires connection to the electricity network. The connection point will occur within the Development Footprint.

The EIS stated that an underground transmission line (132kV) will be constructed to connect the Project to the existing Transgrid substation to the immediate northeast.

1.4.3. Restrictions applicable to the site

The are no restrictions on the land applicable to the Project Site. There are no Crown Lands relevant to the Project.

1.4.4. Road upgrades

No changes are proposed to the site access arrangements. The Project includes road upgrades to the Mid-Western Highway site entry to provide a Basic Left Turn (BAL) treatment at the access driveway crossover. The internal access road is planned to be formalised to accommodate heavy vehicles associated with the construction of the BESS.

1.4.5. Neighbour agreements

Specialist studies determined no high impacts that require an 'impact agreement'. However, the Applicant is still consulting with near neighbours any may formalise agreements as the project progresses.

1.5. This report

This Submission Report (NGH, Response to Submissions Report, 2025a) has been prepared to analyse the issues raised in public and government agency submissions and explain what actions the Applicant has taken since the EIS was publicly exhibited in relation to them. It includes a:

- Specific response to each issue raised[1] in the public submissions.
- Specific response to each government agency issue raised.

The report is guided by the *State significant development guidelines – preparing a submissions report* (DPHI, 2024), and is structured as follows:

Chapter 2	summarises the submissions received.
Chapter 3	summarises the actions taken by the Applicant since public exhibition of the EIS.
Chapter 4	details the Applicant's responses to public and organisation submissions.
Chapter 5	details the Applicant's responses to agencies.
Chapter 6	project justification.

Appendices include:

[1] Each issue raised in public submissions is addressed in this report, not each public submission individually. A cross-reference table is provided in Appendix A so that the response to each submission can be tracked.

A. Submissions register, to identify where each submission received is addressed in this report. The submission ID can be used to search responses that reference this submission number.
B. An updated consolidated table of mitigation measures that form commitments of the Project, pending Project approval.
C. Consultation relevant to this report.

2. Analysis of submissions

2.1. Breakdown of submissions

Submissions were received from government agencies, council, organisations and the public individuals. The total number of submissions received for the Project by the end of the public exhibition period was 43. Table 2-1 below summarises the submissions made to the Project.

As the Project did not receive more than 50 unique objections, the Project is not required to be referred to the Independent Planning Commission (IPC). The final decision will be based on DPHI's assessment of the Project.

Table 2-1 Submissions summary

Public: 26 submissions received including:	• 4 letters of support • 2 general comments • 20 objections
Organisations:	• Save Our Surroundings Riverina • Save Our Surroundings Murrumbidgee • Save Our Surroundings (SOS) • B G & JL Jarratt PL • Bathurst Community Climate Action Network (BCCAN)
Government agencies providing comments:	• Biodiversity Conservation and Science Group (BSC) • NSW Department of Climate Change, Energy, the Environment and Water • Department of Primary Industries (DPI) Agriculture • NSW Fire and Rescue • NSW Rural Fire Service • Heritage NSW – Aboriginal heritage • Transport for NSW (TfNSW) • DPI Fisheries • DPE Hazards
Government agencies citing 'no comments':	• NSW Crown Land • NSW DPHI (Hazards) • Transgrid
Council submission providing comments:	• Bathurst Regional Council (BRC)

2.2. Spatial distribution of submissions

The majority of submissions were submitted by residents and organisations in the suburbs of Evans Plains, followed by Gulgong, and Lake Albert. Of the 31 public and organisation submissions received, only nine submissions came from within 50km of the proposed site. This accounts for about 29% of submissions. Twenty two submissions are from further than 50km away which indicates a wider interest in the Project. The distribution can be seen in Figure 2-1.

Nineteen separate issues were identified from the public and organisation submissions. Their prevalence is ranked (noting letters of support as well as objections), in Table 2-2. Most submissions raised more than one issue, in relation to the Project.

The key reason cited in objections was beyond the scope of the Project, mostly around issues with accessing the EIS during exhibition. This was followed by concerns of the impacts and risks arising from hazards, including fire risk (refer to

Figure 2-2). This was linked in many cases to concerns about components of the Project directly or indirectly posing a fire risk. Impacts relating to the cost benefit and waste and resource recovery were the next most common issues cited in objections.

Considering only submissions received from within 50km of the Project (29% of the total received), the main issues raised were related to traffic and transport and visual amenity impacts.

The number of public submissions is categorised by the DPHI guideline category requirements in Table 2-3. This categorisation is used in Section 4 to respond to each issue raised.

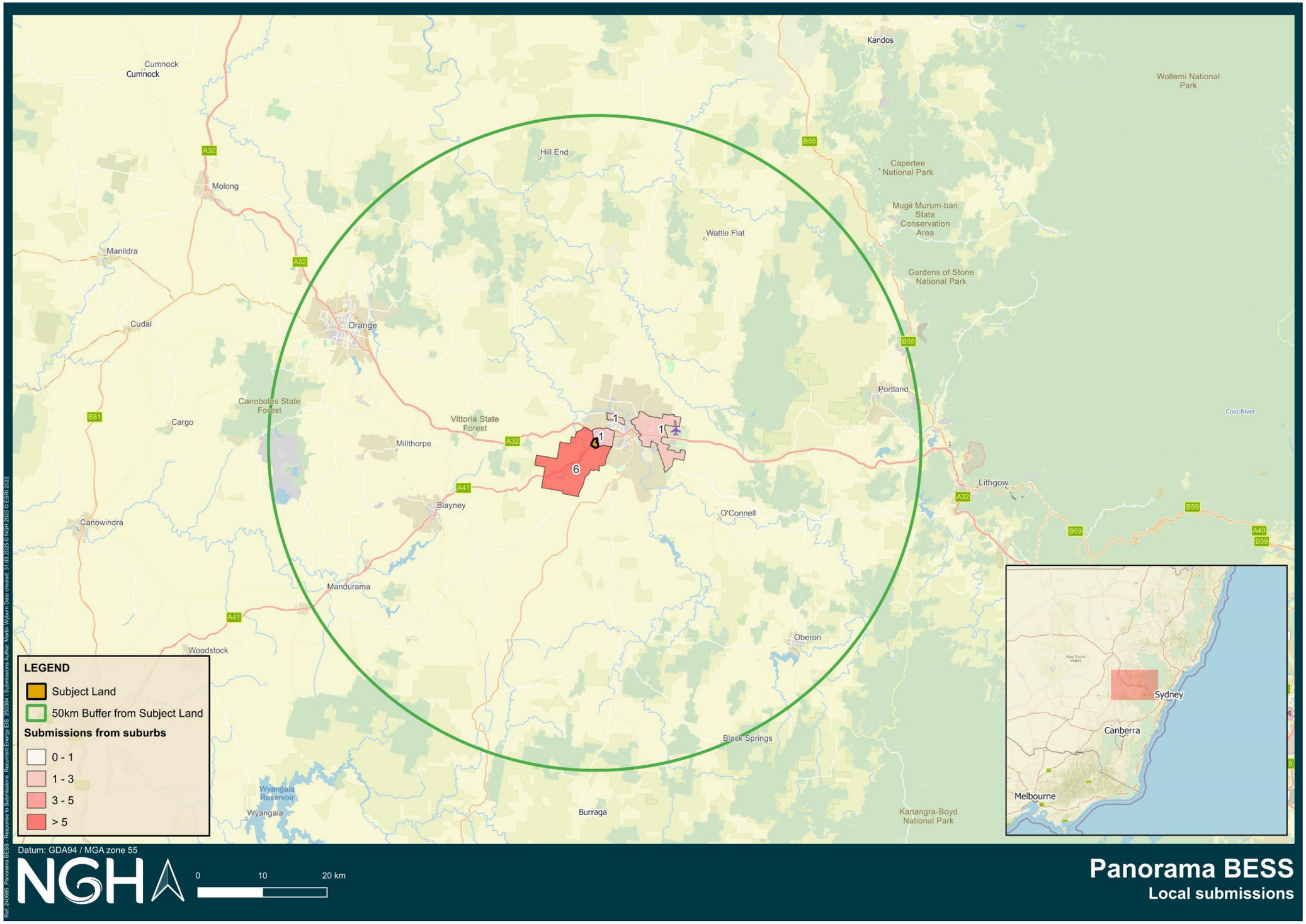


Figure 2-1 Spatial distribution of local submissions

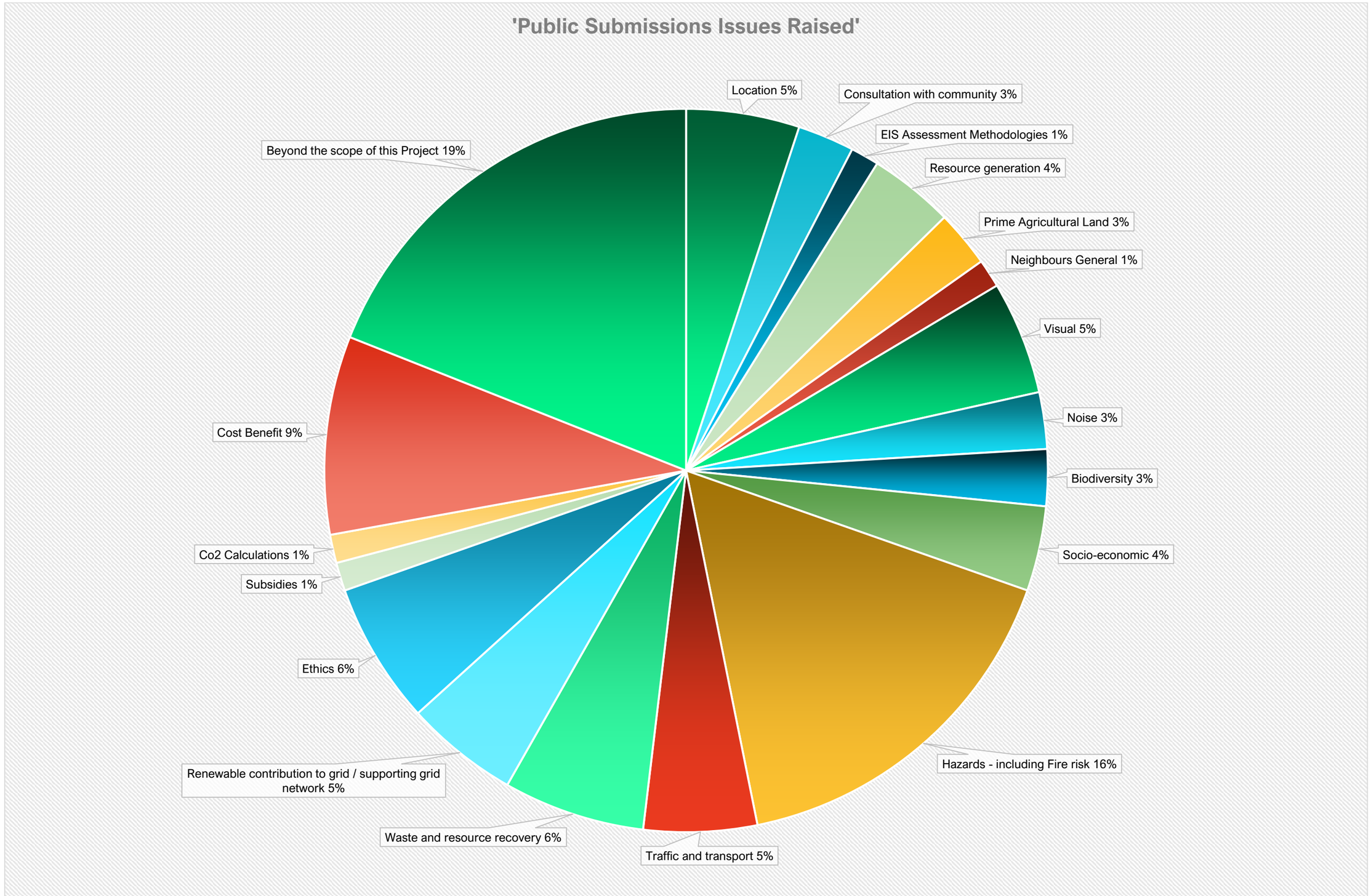


Figure 2-2 Issues raised most often in public submissions

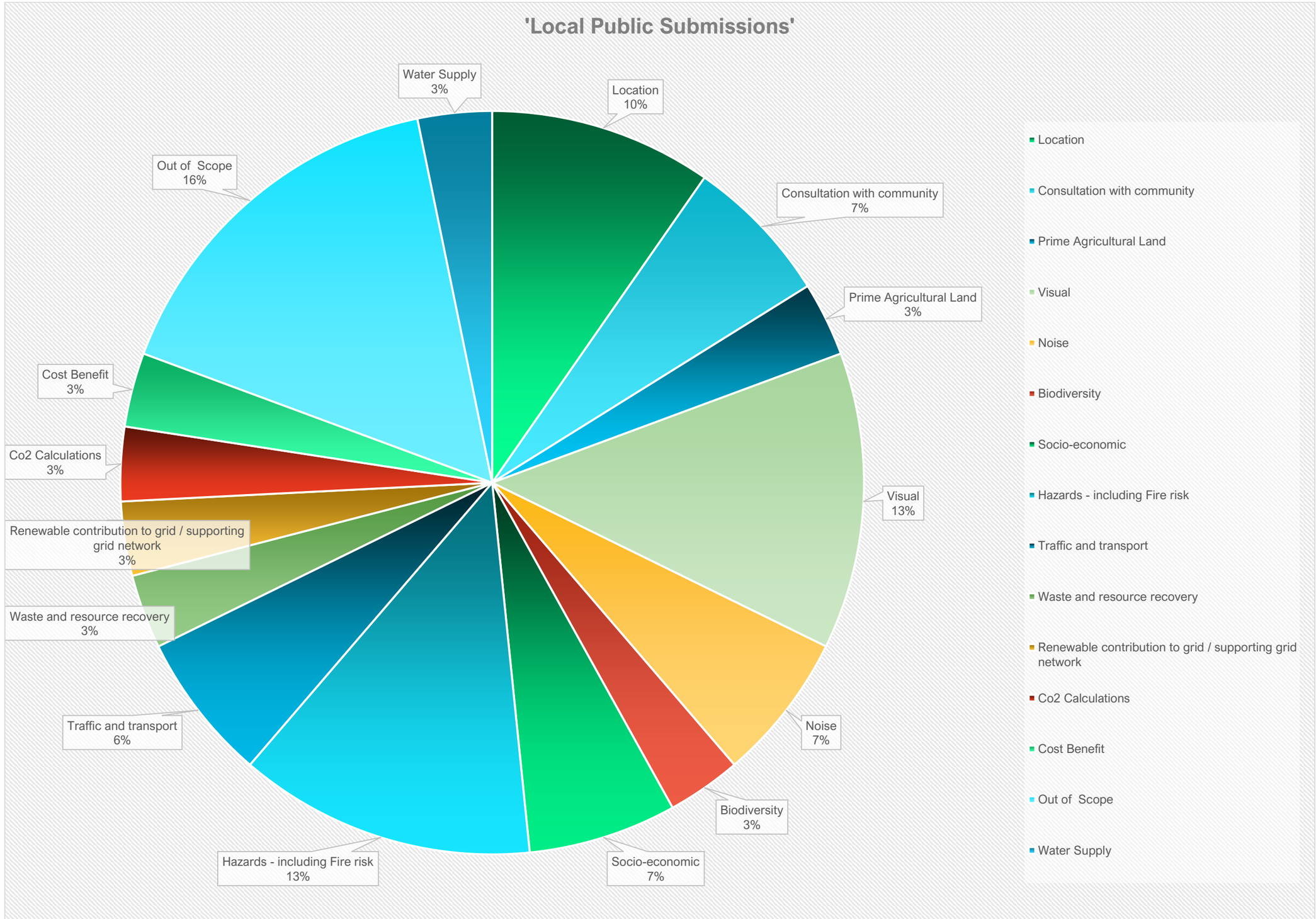


Figure 2-3 Issues raised most often in public submissions received from within 50km of the Project

Table 2-2 Issues raised in public submissions, ranking those most prevalent and noting those that were in support of / providing comment and objecting to the Project

Issue	Section addressed	Total submissions	Support	Object	Ranking (by prevalence)
Beyond the scope of this Project	Section 4.5.1	20	1	19	1
Hazards – including Fire risk	Section 4.3.1	17	1	16	2
Cost benefit	Section 4.4.1	9	0	9	3
Ethics	Section 4.3.10	7	0	7	4
Waste and resource recovery	Section 4.3.7	6	1	5	5
Visual	Section 4.3.4	5	3	2	6
Traffic and transport	Section 4.3.2	5	3	2	6
Location	Section 4.1.1	5	2	3	7
Renewable contribution to the grid / supporting grid network	Section 4.4.1	4	1	3	8
Resource generation	Section 4.3.11	4	0	4	9
Socio-economic	Section 4.3.10	4	0	4	10
Noise	Section 4.3.3	3	2	1	11
Biodiversity	Section 4.3.6	3	0	3	12
Consultation with community	Section 4.2.1	2	0	2	13
Prime Agricultural land	Section 4.3.5	2	0	2	13
EIS assessment methodologies	Section 4.2.2	1	1	0	14
Neighbours General	Section 4.4.1	1	0	1	15
Subsides	Section 4.4.1	1	0	1	15
Co2 calculations	Section 4.3.9	1	0	1	15

Issue	Section addressed	Total submissions	Support	Object	Ranking (by prevalence)
Total		**100**	**15**	**85**	

Table 2-3 Issues raised in public submissions, categorised by DPHI guideline category

The Project itself	• Location (2)	
Procedural concerns	• Community engagement process (2)	• Environmental assessment methodologies (1)
Environmental, social and economic impacts	• Impact on traffic and roads (5) • Agricultural Impact (2) • Visual Impact (4) • Socio-economic impacts (7) • Dust impacts (0) • Noise impact (3) • Health and wellbeing (1) • Biodiversity impacts (2)	• Fire hazards (17) • Land and water impacts (1) • Waste and decommissioning (11) • Local climate impacts (2) • Resource use (5)
Planning Instruments	• N/A	
Justification	• Justification (10)	
Beyond the scope of the Project	• Beyond the scope (19)	

3. Actions taken since public exhibition

3.1. Amendments to the Project

Design work and further environmental investigations have been progressing since the EIS was exhibited. An Amendment Report has been prepared to outline and assess the changes proposed (NGH, 2025b). These changes are proposed to improve the Project's operational performance and constructability. The changes are summarised as follows:

1. Change in technology of the battery energy storage from the Solbank 2.0 system to the Solbank 3.0
2. Increase in the Development Footprint to facilitate civil battering and realignment to improve safety and stability.

Apart from the amendments stated above, all other Project infrastructure elements remain as presented in the EIS.

The Submissions Report (this report) is supported by the following specialist reports and are appended in full in Appendix D.

- Traffic Impact Assessment
- Contaminated Land Assessment

The Amendment Report (NGH, 2025b) is supported by the following specialist reports:

- Aboriginal Cultural Heritage Assessment
- Biodiversity Development Assessment Report Waiver
- Preliminary Hazard and Bushfire Assessment
- Noise and Vibration Impact Assessment
- Landscape and Visual Impact Assessment.

Additional mitigation measures have been adopted by the Project. Appendix B of both the Submissions Report and Amendment Report includes an updated consolidated table of mitigation measures that form commitments of the Project, pending approval by DPHI.

3.2. Consultation

3.2.1. Community consultation

During the EIS exhibition and the preparation of the response to submissions, the following consultation was undertaken with community stakeholders. A consultation log has been provided to DPHI in evidence of this consultation.

Table 3-1 Community consultation

Stakeholder group	Date	Consultation methods and outcomes
Near neighbours and interested community members	Post lodgement of Submissions Report and Amendment Report	Newsletter providing update to nearby sensitive receivers and community on the lodgement of the Submissions Report and updates to the Projects as detailed in the Amendment Report.

3.2.2. Agencies and other stakeholders

During the EIS exhibition and the preparation of the response to submissions, the following consultation was undertaken with agency stakeholders. Appendix C of this report provides key communications with agencies.

Table 3-2 Agency consultation

Agency stakeholder	Date	Comments
Bathurst Regional Council	15/10/2024	Recurrent Energy provided general project updates to Bathurst Regional Council. During the meeting, each item in Bathurst Council's submission letter was thoroughly reviewed to ensure that responses would be adequately scoped.
	15/04/2025	A follow-up call was made to discuss water supply for the project during construction and to secure consent for the use of local council roads.
Transport for NSW	17/04/2025	Recurrent Energy arranged a meeting with TfNSW to discuss the proposed responses to all issues raised by TfNSW during the submissions phase. The purpose of this meeting was to ensure that Recurrent Energy's responses were clear and sufficiently addressed TfNSW's concerns.

4. Response to public submissions

The issues raised in the public submissions have been grouped and set out in the table below to allow more specific responses to be provided. Each *issue raised* in public submissions is addressed in this report, not *each submission individually*. A cross-reference table is provided in Appendix A so that the response to each submission can be tracked.

Table 4-1 Issues raised in public submissions, grouped in order of prevalence to allow specific responses

4.1 The Project itself	**4.1.1 Location**	A. Alternative site location a. Site selection process B. Location
4.2 Procedural concerns	**4.2.1 Community engagement process**	A. Lack of community consultation B. Compliance
	4.2.2 Environmental assessment methodologies	A. Further details around grid connection B. Further details in decommissioning process
4.3 Environmental impacts	**4.3.1 Hazards and Risks**	A. Risk of fire ignition B. Increased local bushfire risk C. Consideration of nearby residents in event of battery fire / toxic fumes
	4.3.2 Traffic and transport	A. Impact on local road network / traffic flow B. Concern of site access selection / consideration of alternative access C. Concern of traffic safety and maintaining asset - local roads (unsealed) D. Concern of safe sight distances at intersections E. Traffic noise during construction – refer to 4.3.3
	4.3.3 Noise impacts	A. Construction noise (including traffic noise impact) B. Operational noise impact
	4.3.4 Visual impacts	A. Visual impact on nearby properties / Implementation of vegetation screening
	4.3.5 Agricultural impacts	A. Loss of prime agricultural land
	4.3.6 Biodiversity impacts	A. Impact on local ecology generally

	4.3.7 Waste and decommissioning	A. Concern of toxic waste B. Recycling and waste management concerns
	4.3.8 Land and water	A. Contamination risks
	4.3.9 Local climate	A. Increase in CO_2 emissions
	4.3.10 Socio-economic impacts	A. Impact on property values B. Ethical concerns including modern slavery
	4.3.11 Resource generation / use	A. Reliance on imported materials and overseas resource extraction
4.4 Justification	**4.4.1 Justifications**	A. Public subsides B. Lifespan of Project questioned C. Grid supply capability questioned D. Low cost benefit / expensive development E. Support for renewable energy transition
4.5 Beyond the scope of the Project	**4.5.1 Beyond the scope of the Project**	A. Issues accessing EIS documents B. Comments regarding generation project

4.1. The Project itself

4.1.1. Location

A. Alternative site location

Issue

Two submissions were received that questioned the site selection process and suggested that the Project be in an alternative location.

Submission ID

SE-75031464. SE-75049460

Panorama BESS Project response

Several sites were considered during the site selection process. The current site was selected on the basis of:

- Appropriate zoning of land to facilitate development consent for a BESS
- Availability of existing access to the site via an establish road network
- Proximity to the existing Transgrid substation, to minimise impacts of easements
- Selection of a construction location that would avoid and/or minimise impacts to high quality native vegetation and protected fauna

- An area that would not result in, or be subject to, potential flood impacts
- Minimising impacts to surrounding privately or publicly owned land and residential dwellings due to noise and visual amenity concerns; and
- Landowner interest in hosting a BESS facility.

During the EIS process, specialist investigations were completed with additional design and siting consideration given to the BESS site, noting the avoidance to remove any native vegetation and minimise any impacts to biodiversity. The same consideration was applied for the underground cabling connection route to the substation by avoiding areas of native vegetation.

The site selection process has identified a site suitable to achieve the objectives of the Project.

B. Location

Issue

Four submissions were received regarding the location of the Project, noting issues including:

- Location next to the substation – appropriately located / support for the Project
- Viability for a BESS within the local community – may not benefit the network
- Visual impact – object to impacts

One submission provided support for the location being appropriate

Submission ID

SE-75031464. SE-75049460, SE-74849303, SE-74609479, SE-74953961

Panorama BESS Project response

The BESS must be connected to a substation, either directly or via a ‘cut in’ that connects a new or existing transmission line to the substation, in order to provide ‘firming’ to the grid. The location of the BESS in close proximity to the Transgrid 132kV substation is an advantage for the Project.

This close proximity reduces the requirements for new transmission line easements from the BESS to the substation or ‘cut in’ requirements on the Project Site. Overall, it is considered to reduce environmental impacts and overall costs of the Project. The proposed underground cabling connection will also minimise visual impact from the development. A longer route is likely to have required overhead lines to contain costs.

The BESS facility will be interconnected to the National Energy Market (NEM), delivering benefits to both the local area and wider network The NEM is a wholesale electricity market and physical power system that connects the electricity grids of eastern and southern Australia, facilitating the generation, distribution, and trading of electricity across these regions. The system will be designed to rapidly respond to fluctuations in electrical supply and demand, balancing the grid and ensuring a reliable power supply. By storing surplus electricity when demand is low and releasing it during peak times, the BESS will help to smooth out the intermittency of renewable energy sources such as solar and wind. This capability enhances the grid's capacity to manage variable renewable energy both locally and across the broader network, minimises the curtailment of renewable generation, and optimises the use of clean energy resources.

The Panorama BESS can be constructed and operated to minimise noise and visual amenity impacts to surrounding privately or publicly owned land and residential dwellings due to its proximity to infrastructure of

similar design, in line with current agency guidelines and expectations. Refer to Section 4.3.4 for further details regarding visual impact.

The location is considered appropriate for the development of a BESS and is well located in terms of the Project's objectives.

4.2. Procedural concerns

4.2.1. Community engagement process

A. Lack of community consultation

Issue

Two local submissions were received raising concerns that the Project did not appropriately consult with the community.

Submissions ID

SE-75031464, SE-75079460

Panorama BESS Project Response

During the preparation of the EIS, the engagement activities included the issuing of a formal letter summarising key aspects of the Project. This was delivered via post to 393 surrounding residential properties in October 2022. A follow up letter detailing Project updates was issued in March 2023. A copy of the letter distributed during the EIS phase is attached in Appendix C.

In addition to the letters, a Project website was created, detailing key project information, timelines, a FAQ section and project contact details. The link to the website was included in the letter issued in March 2023.

Community drop-in sessions were held on 4 and 5 December 2023 at the Bathurst City Bowling Club, with Recurrent Energy representatives present. Prior to these meetings a total of 1,403 directly addressed letters were sent to residents within 3km of the Project and along the transport route, inviting residents to attend the information sessions.

Reaching all interested stakeholders is challenging, particularly in rural areas. The Applicant has focussed on ensuring those most likely to be affected have a good understanding of the Project and are kept up to date. With the issuing of letters directly to stakeholders, provision of a project website and holding the drop in sessions has provided adequate opportunities to engage with the local community.

B. Compliance

Issue

One submission (support) of the Project commented that support of the Project would be based on the Applicant adhering to mitigation commitments.

Submission ID

SE-74848207

Panorama BESS Project response

The mitigation measures detailed in the EIS and updated in the Amendment report (NGH 2025b) are intended to carry out through the preparation and implementation of the Project.

These mitigation measures include the preparation of a Construction Environmental Management Plan (CEMP), which will consist of several supporting sub-plans as identified through the specialist investigations conducted to inform the Project.

An Operational Environmental Management Plan (OEMP) will also be implemented during the operation phase of the Project, focussed on fire and risk management, and landscaping and vegetation management. Further details will be provided by the Project specific Conditions of Consent, which will be captured by these management plans were required. Project auditing and non-compliance reporting processes are also standard requirements within BESS Conditions of Consent.

4.2.2. Environmental assessment methodologies

A. Further details around grid connection

Issue

One submission (support) requested further information in relation to the technology / process around the grid connection.

Submission ID

SE-74609479

Panorama BESS Project response

The BESS will be supported by inverters (32 Power Electronics HEMK Inverters (8800 Kilovolt-amps (kVA)) which will convert the electricity from the BESS and connect to the existing Transgrid substation via approximately 100m of 132kV underground cables.

The Panorama BESS project is designed to utilise grid-forming inverters instead of grid-following inverters. Grid-forming inverters actively support the grid by establishing and regulating voltage and frequency, providing synthetic inertia, and enhancing grid stability during disturbances.

B. Further details in decommissioning process

Issue

One submission (support) requested further information in relation to the decommissioning process of the Project.

Submission ID

SE-74609479

Panorama BESS Project response

The Project is proposed to be decommissioned and the infrastructure removed following the end of life of the BESS, with works required to return the site as close as possible to its original state and use. All decommissioning and restoration activities would be in accordance with permits, approvals and regulatory

requirements at the time. However, the consent is expected to require the site be returned to a stable, safe and non-polluting state (these are standard requirements within BESS Conditions of Consent).

The standard construction hours and heavy vehicles, plant, and equipment required for the construction of the Project would also apply to the decommissioning phase.

Waste types and quantities generated during the decommissioning phase of the Project would be managed similarly to construction phase, and in accordance with the waste hierarchy to avoid, reduce, re-use, recycle, and recover materials where possible, through effective design and planning. The decommissioning phase is anticipated to generate waste such as lithium iron phosphate batteries and associated infrastructure (cabling, inverters, transformers, and other components). The majority of materials are anticipated to be reused or recycled in a facility lawfully licensed to accept these waste types. Any waste that cannot be reused or recycled, would be collected by a licenced contractor and disposed of in an appropriate lawfully licensed facility to accept it. An updated investigation of opportunities and feasibility of recycling of batteries would also be undertaken. As far as practical the batteries within the BESS would be recycled at approved battery recycling facilities, or subject to confirmation, could be returned to the original equipment manufacturer for refurbishment and recycling. Where spent batteries are unable to be recycled, they would be disposed of at a suitably licensed facility.

4.3. Environmental impacts

4.3.1. Hazards and risks

A. Risk of fire ignition

Issue

Eight submissions raised concerns of the risk of fire ignition due to the Project.

Submission ID

SE-74957753, 4.3.10, SE-74849303, SE-74942457, SE-74967716, SE-74967719, SE-74957755, SE-74848208,

Panorama BESS Project response

Ignition risks exist in relation to:

- Construction hot works such as welding
- Operational malfunction, such as within a BESS unit

Standard construction management protocols would apply to construction activities. These are managed via a CEMP and may detail measures such as restricting hot works in certain weather conditions.

A Preliminary Hazards Assessment (PHA) has been undertaken as a part of the EIS to consider the battery storage risks particularly. A total of 10 hazard events were identified.

The majority of the hazard events relate to fire events resulting from a variety of causes (e.g., release of flammable materials, battery thermal runaway, infrastructure fire, bushfire, etc

Mitigation measures that have been put in place to lower the risk of a potential fire ignition include appropriate Asset Protection Zones around the Project Site and appropriate separation distances between

the BESS containers to reduce the chances of thermal runaway occurring. Based on the identified controls, the highest likelihood for these events were rated as very unlikely (i.e., heard of in the industry, but not expected to occur).

An updated PHA was undertaken to assess the change in BESS technology for the Project (refer to the Amendment Report (NGH, 2025b)). The updated PHA identified a total of 16 risk events were identified. As Low As Reasonably Practicable, or ALARP, is a risk management principle that aims to reduce risks to a level where further risk reduction would be disproportionate to the effort, time, and cost required. The breakdown of these events according to their risk ratings are as follows:

- 12 low risk events
- 4 ALARP risk events
- 0 high (intolerable) events.

Based on the findings of the assessment, and with the implementation of additional recommendations and/or safeguards applied, the risks associated with the amended Project would be adequately managed, with suitable engineering controls, operational controls and management controls in place.

As such, the risks associated with the amended Project would not increase beyond those identified during the exhibition of the EIS.

B. Increased local bushfire risk

Issue

Five submissions raised concerns about the Project compounding the risk and effects in the event of a bushfire.

Submission ID

SE-74918709, SE-74849303, SE-74848208, SE-74877973, SE-74967719

Panorama BESS Project response

The Bathurst region is exposed to high bushfire risks under seasonal conditions. The duration and intensity of bush fire seasons is expected to increase with climate change. Grassfires as well as woodland fires equally pose a risk to human life and assets in a bush fire event.

The Project is committed to developing a BESS that has appropriate Asset Protection Zones (APZ), complies with the relevant construction and design requirements, has appropriate access for emergency service vehicles, and readily accessible water supply for emergency services. In this way it will be better able to address fires onsite and any that occur locally that may affect the facility.

Appropriate mitigation measures are developed to meet agency guidelines and include:

- Develop a Bush Fire Emergency Management and Operations Plan to include but not be limited to:
    - Specific management of activities with a risk of fire ignition (hot works, vehicle use, smoking, use of flammable materials, blasting)
    - Incorporation of fire safety and response in staff and contractor induction, training, occupational health and safety procedures and Work Method Statements.
    - Designation of a staff safety officer tasked with ensuring implementation of the plan and regular liaison with firefighting agencies.

- Document all firefighting resources maintained at the site with an inspection and maintenance schedule.
- Monitoring and management of vegetation fuel loads.
- A communications strategy incorporating use of mobile phones, radio use (type, channels and call-signs), fire danger warning signs located at the entrance to the site compounds, emergency services agency contacts. In developing the Bush Fire Management Plan, NSW RFS and Fire Rescue NSW would be consulted on the volume of water supplies, fire-fighting equipment maintained on-site, fire truck connectivity requirements, proposed APZ and access arrangements, communications, vegetation fuel levels and hazard reduction measures.

C. Consideration of nearby residents in event of battery fire / toxic fumes

Issue

One local submission raised concerns that nearby residents need to be considered in the event of a battery fire.

Submission ID

SE-74849303

Panorama BESS Project response

Lithium Iron Phosphate (LFP) is the battery chemistry that has been selected for the Project. LFP was chosen over Lithium-ion (Li-ion) as it provides:

- Minimal risk of thermal runaway
- Safety, fire management and containment
- Ability to support the network to increase renewable energy penetration
- Ability to provide energy during periods of peak demands
- Minimal environmental impact
- Safety and ease of integration
- Demonstration and maturity of technology
- Value for money.

While the risk of a battery fire is low, (refer to the updated PHA in the Amendment Report (NGH, 2025b)) in the event of a fire there is the potential risk of toxic fumes being released. The gas emissions released during a battery fire are predominantly comprised of Hydrogen Fluoride, Carbon Monoxide, Hydrogen and hydrocarbons (Bugryniec, et al., 2024). These substances have been deemed toxic in enclosed spaces and can potentially cause health issues. An Air Quality, Dispersion Modelling and Risk Assessment (Calvin Consulting, 2022) assessed the impacts and risks of these substances on air quality and health and safety within the surrounding area of a proposed BESS. The report concluded that:

- In the event of a BESS fire, maximum concentrations for Hydrogen Fluoride and Carbon Monoxide are predicted to exceed ambient air quality levels in close proximity to the BESS site, as would be expected during a fire.
- All concentrations are predicted to comply with their applicable ambient air quality levels beyond the BESS facility perimeter.

- From a health or safety perspective, all maximum 10-minute average concentrations beyond the BESS perimeter line are predicted to be well within applicable Immediately Dangerous to Life of Health (IDLH) limits
    - The report did not predict any significant off-site health or safety impact associated with BESS emissions in the event of a fire
- Given the safety features of the BESS systems being considered and the low probability of a BESS fire from LFP batteries, coupled with the acceptable off-site maximum predicted air quality and IDLH concentrations, the risk to the public and area residents in association with this project was deemed to be low.

Furthermore, the United States Environmental Protection Agency completed an air monitoring assessment following the Moss Landing Vistra Battery Fire (U.S. EPA, 2025). The Moss Landing BESS has a capacity of approximately 182.5MW / 730MWh, with the closest receiver just under 1km from the facility (Pacific Gas and Electric Co, 2019). The EPA monitored for hydrogen fluoride, along with other particulate matter. A total of nine monitoring stations were installed shortly after the fire started, with two at the BESS facility, and the other seven located in communities surrounding the facility. Monitoring stations were sited to account for changes in wind direction and potential drift to nearby communities. The EPA recorded that:

- EPA's monitoring showed concentrations of particulate matter to be consistent with the air quality index throughout the Monterey Bay and San Francisco Bay regions, with no measurements exceeding the moderate air quality level.
- Hydrogen fluoride gas was measured at one second intervals and there were no exceedances of California's human health standards.

For Panorama BESS, the surrounding topography and vegetation, coupled with the distance of nearby receivers play an important role on the potential impact and risk associated with toxic fumes. Given the open topography (not situated within a valley) and low vegetation density, the risk of dispersion of toxic fumes to nearby residences are likely to be negligible based on previous studies. As such, an Air Quality and Smoke Plume Assessment is not considered warranted.

Furthermore, several safeguards built into the BESS units to prevent or mitigate the dispersion of these substances, which include:

- A fire detection and alarm system
- Explosion prevention
- Emergency stop / automatic shut off (both local and remote)
- Fire suppression systems

Externally to the BESS units, water is stored onsite for use in containing the spread of fire to adjacent vegetation, should a fire occur onsite or should one ignite offsite and spread to the site. Set back areas are mandated in the design to ensure a defensible space between the battery and other assets and this vegetation (an 'asset protection zone'). This allows fire management vehicles to access the fire and contain it onsite.

Many lessons were learned from the Victorian Big Battery fire in 2021 that now inform the management of BESS to protect nearby residents. This includes that BESS units are designed and located with sufficient separation distances so that if one unit does ignite, this should not spread to adjacent units thus mitigating the potential for thermal runaway. These prescriptions are detailed in the PHA's assumptions and

recommendations, which together form commitments of the Project. Water is not used to contain BESS fires; they burn themselves out.

Appropriate bunding around the BESS units also aid in preventing any potential runoff from the site into any nearby water sources.

The Project is located in a low-density rural area where large separation distances and good emergency egress ensures that while a high consequence, the overall risk is considered manageable.

4.3.2. Traffic and transport

A. Impact on local road network / traffic flow

Issue

Four submissions raised impacts on existing road assets as being of concern

Submission ID

SE-74919239, SE-74556208, SE-74958490, SE-74918709

Panorama BESS Project response

Due to the rural nature of the Project site, the primary road selected was the Mid-Western Highway. The proposed heavy vehicle route will also include Mitchell Highway Evans Plains Road.

The Traffic Impact Assessment (TIA) undertaken during the EIS noted that it is not a common practice to direct heavy vehicles to an unsealed carriageway, however there are a number of factors which make this route safe and viable:

- Low construction traffic volumes: The development will generate 289 inbound heavy vehicle movements throughout the entire 14-month construction period which is in the order of 0.8 heavy vehicle inbound movements per day with no light vehicles utilising the unsealed carriageway
- Low speed environment: Evans Plains Road serves as a low-speed road providing access to number of rural farming estates with low existing traffic volumes; and
- Allows heavy vehicles to make left turn into site: A right turn into the site in proximity to an overtaking lane could present higher safety risks. Travelling along Evans Plains Road will allow all heavy vehicles to turn left into site.

The provision of a BAL treatment is provided at the existing site access location. Additionally, right-turn into the site from Mid-Western Highway travelling west should be banned for all heavy construction vehicles to ensure safety is maintained for road users.

An updated TIA has been undertaken in response to submissions received (refer to the Amendment Report (NGH, 2025b)).

B. Concern of site access selection / consideration of alternative access

Issue

Two submissions (both local and in support) raised concerns of the site access and the need to consider an alternative site access point.

Submission ID

SE-74919239, SE-74958490

Panorama BESS Project response

The EIS identified that the best option for access to the site would be via the existing site crossover on Mid-Western Highway that readily services the Transgrid substation via the upgrading of this access. Other access option were not considered feasible and therefore no further consideration was warranted. Improvements to the existing turn treatment into the site have been made through a Basic Left Turn (BAL) treatment. The internal access road is planned to be formalised to accommodate heavy vehicles associated with the construction of the BESS. An additional connection road will be constructed from the existing internal road to the BESS.

A Safe Intersection Sight Distance (SISD) assessment was undertaken during the EIS for the site access and noted that the east approach is located on a straight with no substantial horizontal bends or vertical curves that limit sight distance. The west approach is situated on a minor horizontal bend. However, there are no substantial horizontal bends or vertical curves that limit sight distance. The SISD identified in the EIS has been reviewed and updated as part of the updated TIA.

In response to submissions received, the Project has undertaken an updated TIA, with further SISD assessment completed (refer to Amendment Report (NGH, 2025b)).

C. Concern of traffic safety and maintaining asset – local roads (unsealed)

Issue

One submission raised concern of the impact of heavy vehicle movements on local unsealed roads.

Submission ID

SE-74958490

Panorama BESS Project response

As stated above, the TIA noted that it is not a common practice to direct heavy vehicles to an unsealed carriageway, however there are a number of factors which make this route the most appropriate and safe option:

- Low construction traffic volumes: The development will generate 289 inbound heavy vehicle movements throughout the entire 14-month construction period which is in the order of 0.8 heavy vehicle inbound movements per day with no light vehicles utilising the unsealed carriageway
- Low speed environment: Evans Plains Road serves as a low-speed road providing access to number of rural farming estates with low existing traffic volumes; and
- Allows heavy vehicles to make left turn into site: A right turn into the site in proximity to an overtaking lane could present higher safety risks. Travelling along Evans Plains Road will allow all heavy vehicles to turn left into site.

A Construction Traffic Management Plan (CTMP) will also be developed in the post-approval stage, which will highlight:

- Any changes to development planning which occur subsequent to preparation of this assessment and the impact of these changes on the conclusions of this assessment. In addition, the CTMP would

typically detail impact mitigation strategies including soft strategies such as busing the workforce unlike what is assumed herein for a conservative assessment and hard strategies such as the road works near access locations identified herein.

- The inclusion of a driver's code of conduct. This driver's code of conduct should include but not be limited to the proposed approach/departure routes to/ from the subject development, the nearby acceleration lane and the possibility of black ice on the roads during the winter months.

The project also commits to dust suppression as detailed:

- Exposed surfaces are to be minimised and effectively managed with dust and sediment suppression systems throughout construction to reduce the volume of potential dust emission sources. This will include the use of water carts prior to the heavy vehicles using the unsealed sections.

D. Concern of safe sight distances at intersections

Issue

One submission raised concern that the sight distances for the Project access were not adequate.

Submission ID

SE-74556208

Panorama BESS Project response

A sight distance assessment was undertaken during the EIS for the access location in accordance with the following:

- Part 4A: Unsignalised and Signalised Intersection of the Austroads Guide to Road Design.
- Part 3: Guide to Road Design: Geometric Design of the Austroads Guide to Road Design.

SISD is the minimum sight distance which should be provided on the major road at any intersection, providing sufficient distance for a driver of a vehicle on the major road to observe a vehicle on the minor road moving into a collision situation (e.g., in the worst case, stalling across the traffic lanes), and to decelerate to a stop before reaching the collision point.

As noted above, the east approach is located on a straight with no substantial horizontal bends or vertical curves that limit sight distance. The west approach is situated on a minor horizontal bend. However, there are no substantial horizontal bends or vertical curves that limit sight distance.

In response to the submissions, an updated TIA has been undertaken which includes an updated SISD assessment (refer to the Amendment Report (NGH, 2025b)). This SISD assessment confirms that there are adequate sight distances in both directions.

E. Traffic noise during construction (refer to 4.3.3)

4.3.3. Noise impacts

A. Construction noise (including traffic noise impact

Issue

One submission raised concerns regarding construction noise, in particular construction traffic noise.

Submission ID

SE-74958490

Panorama BESS Project response

The Project is expected to have a construction duration of around 14 months.

The noise modelling of the construction program as well as construction traffic has been undertaken for the Project. This was updated in response to the changes in the Project's BESS technology and footprint and is detailed in the Amendment Report (NGH, 2025b). The updated mitigation measures are detailed in Appendix B.

This modelling is conservative and represents worst-case noise levels (where all equipment in each scenario is working concurrently). Therefore, for most of the program it is expected that the construction noise levels would frequently be lower than predicted.

Results of the noise assessment found that:

- There is a minor exceedance of 3dBA predicted at 16 Stewart Street, with the exceedance being attributed by truck movement on the access road. However, it is noted that a 3dB increase is considered barely discernible.
- At 800 Mid-Western Highway, Evans Plains an exceedance 1dBA above the Daytime Project Specific noise management level (of 46dBA) is predicted, which is attributed by truck movement. It is noted that 800 Mid-Western Highway, Evans Plains is a host land owner and that 1dBA is not considered to be a discernible exceedance.
- At all other residential receivers noise levels do not exceed the criteria of 40dBA, due to the large distances to the access road and site.

With the mitigation measures detailed in EIS, the Project's noise impacts can be further reduced and are considered acceptable.

B. Operational noise impact

Issue

One submission raised concern of the operational noise impact of the Project on nearby residential properties.

Submission ID

SE-75031464

Panorama BESS Project response

An updated Noise Impact Assessment was undertaken to assess the change in BESS technology and Development Footprint for the Project (refer to the Amendment Report (NGH, 2025b)).

This operation noise modelling utilised the SoundPlan v8.2 computer model which was developed for operational activities. Predictions were based on the CONCAWE method. The potential impacts have been determined by comparing the predicted noise levels to the Project Noise Trigger Level (PNTLs) in a 15-minute assessment period.

The battery enclosures and medium voltage power station inverters are also assumed to operate at 100% capacity (i.e. maximum fan speed) 24 hours each day. The transformers and associated fan cooling (where fitted) are assumed to operate at 100% capacity (i.e. maximum fan speed) 24 hours each day.

The sound power levels for the transformers, and the spectrum for the transformers, transformer fans and inverters (fans) were adopted from previous measurements used in the modelling at 80% and 100% fan speed for nighttime and daytime operations, which ensured compliance with noise levels.

The Solbank 3.0 BESS noise report provides sound power levels for 100%, 80%, and 60% fan operation. The Applicant advised that at 25°C the fans will operate at 70% and that the 80% sound power level would be appropriate for night time operations. Accordingly for daytime the battery storage containers are modelled at 100%, and for night-time 80% fan operations.

Based on the findings within the Noise Impact Assessment, all predicted operational noise levels for worst-case proposed operations are below the PNTL at all identified receivers. The BESS is deemed compliant for the daytime, evening and night time periods with the Noise Policy for Industry, which sets out specific noise levels and best practice measures to minimise intrusive sounds while balancing the need for industrial activity.

4.3.4. Visual impact

A. Visual impact on nearby properties / Implementation of vegetation screening

Issue

Five submissions raised concerns regarding the potential visual impact of the Project, noting:

- Visual impact on nearby properties
- Requesting vegetation screening on private property

Submission ID

SE-75031464, SE-75049460, SE-74848208, SE-74958490, SE-74778737

Panorama BESS Project response

A Landscape and Visual Impact Assessment (LVIA) was undertaken during the EIS. The LVIA included a detailed desktop assessment and detailed site assessment. The EIS recommended that a visual management plan would be prepared prior to the commencement of works, with further consideration of landscaping and screening to be applied, if required.

The Applicant acknowledged the issues raised in relation to visual impact and has now confirmed a visual screen in the form of a metal perforated screen will be installed to mitigate visual impacts, along sections of the northern, western and southern extent of the Project Site. Refer to the Amendment Report (NGH, 2025b) for further information regarding the proposed screening.

While all sensitive receivers were identified of having a negligible / very low rating during the EIS and the updated LVIA, the potential impacts can be reduced further by minimising the evident use of the development by integrating it within its surroundings. To achieve this a perforated steel perimeter screen finished with a recessive colour has been proposed.

4.3.5. Agricultural impacts

A. Loss of prime agricultural land

Issue

One submission raised concerns that the Project is located on prime agricultural land and may impact food production of the region.

Submission ID

SE-74942457

Panorama BESS Project response

The *NSW Land and Soil Capability Assessment Scheme* (NSW OEH, 2012) provides guidance on objectively comparing lands in terms of their ability to sustain high levels of agricultural production. The majority of the Project Site is classified as Land and Soil Capability (LSC) Class 4 and a small area of LSC Class 8 land, which is considered to have moderate agricultural capability with moderate to high limitations for high-impact land uses such as cropping. The area is not identified as Biophysical Strategic Agricultural Land (BSAL) or 'Important Agricultural Land', (which are LSC Classes 1-3).

As the area required for the facility is small (5.1ha in updated Development Footprint, including access and construction), the loss of this area from the local agricultural economy and local food production levels is considered negligible. Assuming the entire site were excluded from production (although it is more likely some form of grazing will continue in the broader site), agricultural enterprises across the Project Site have the potential to generate $824 per annum, representing 0.002% of the Bathurst LGA agricultural production.

In addition to the loss of area, Section 4.3.8 details how the Project has committed to minimising any potential contamination risk to the nearby area and further. Sediments and stored materials are considered highly manageable through standard environmental controls. These include sediment erosion controls and storage and bunding protocols. These safeguards are in place to avoid any potential runoff.

4.3.6. Biodiversity impacts

A. Impact on local ecology generally

Issue

Three submissions raised concerns that the Project would negatively impact the local biodiversity.

Submission ID

SE-74918709, SE-75049460, SE-74957743

Panorama BESS Project response

The Project Site contains very limited biodiversity values, with the key feature of biodiversity value being a small patch of native trees that has been avoided through the design and siting of the BESS compound. The site selection and early avoidance decisions therefore allowed a simplified assessment of local biodiversity impacts. A BDAR Waiver Report was submitted to DPHI on the 22 March 2023, with a BDAR Waiver issued by DPHI on the 11 April 2023. The effect of this is that detailed assessment and an offset obligation for

impacts is not required because the biodiversity values being impacted have been identified as sufficiently low.

The Project's area of impact has increased from 3.47 to 5.18ha as additional land was identified to provided a level site for the Development Footprint). Due to this additional area, an updated BDAR waiver was sought for the changes outlined in the Amendment Report (NGH, 2025b), which will be submitted concurrently with the Amendment Report.

No significant impact on local biodiversity values is anticipated from the updated Development Footprint.

4.3.7. Waste and decommissioning

A. Concern of toxic waste

Issue

Five submissions raised concerns around the Project's waste and decommissioning, noting:

- Potentially hazardous contaminating materials may go to landfill
- Lifecyle of the BESS

Submission ID

SE-74918709, SE-74942457, SE-74875478, SE-74957734, SE-74877973

Panorama BESS Project response

The EIS identified several waste facilities that are licensed to accept lithium iron phosphate batteries. Commitments with the EIS stated that lithium iron phosphate batteries would be collected and recycled of by a licensed waste contractor to a facility lawfully permitted to accept this type of waste.

A life cycle analysis (LCA), also known as a Life Cycle Assessment, is based on the assumption that every material resource will eventually become waste. The LCA methodology evaluates and quantifies the environmental impacts caused by a material resource during its life cycle. The main aim of using LCA is to aid in minimising the environmental impacts of materials and guide decision making processes towards a more sustainable outcome through the manufacturing, operation, and disposal phases. This is commonly referred to as a 'cradle to grave' approach.

The life cycle of a lithium iron battery consists of the battery manufacturing, operation, reuse, and waste management for recycling the components. There are three main processes for recycling lithium-ion batteries, being pyrometallurgy (smelting), hydrometallurgy (leaching) and direct recycling. As such, approximately 95% of the battery components can be recovered for alternative use or turned into new batteries. The NSW EPA expect that lithium iron battery waste may grow to approximately 162 000 tonnes by 2036. Correct end of life management processes can reduce the overall negative environmental impacts that arise from the construction of lithium iron batteries.

In relation to BESS projects, the LCA considers the total energy input and annual energy output of the project, termed 'Energy Payback Time' (EPBT). EPBT is a common metric used to represent energy performance of different technologies. The energy payback time for BESS in Australia typically ranges from 8 to 10 years. Considering the average lifespan of 20 years for a BESS (without refurbishment), the energy cost of manufacturing would be paid back in less than half the lifespan of the project, with the potential for

longer if refurbishment occurs. This timeframe can vary based on factors such as system size, usage patterns, and whether any government subsidies or incentives are applied

B. Recycling and waste management concerns

Issue

Four submissions raised concerns about recycling the materials of a BESS after decommissioning and waste management concerns.

Submission ID

SE-74918709, SE-74942457, SE-74875478, SE-74953961

Panorama BESS Project response

The EIS considered the construction and operational waste streams of the Project and their potential for reuse, recycling and disposal. Key elements were identified as lithium iron phosphate batteries, metal components (including cabling, container units, light/security poles and fencing, operation and maintenance (O&M) facilities) as well as concrete (e.g. from pad foundations). The Project has committed to recycling during decommissioning and throughout construction and operation where relevant.

The following are a few considerations for minimising waste during decommissioning.

Recover and Recycle

- Lithium iron phosphate batteries: Dedicated LFP onshore plaints have been commissioned and will grow as the demand grows. The Australian Battery Recycling Initiative (ABRI) is a collection of manufactures, recyclers, retailers, government bodies and environmental groups across Australia, notably in NSW, ACT, QLD and VIC. The most appropriate options for battery recycling will be investigated closer to the time of decommissioning.
- Metal from structures and framing will be segregated and sent to metal recyclers.
- Concrete from foundations will be segregated and sent for recycling.

Closer to the time of decommissioning a detailed plan will be prepared to maximise opportunities for recycling.

Reuse

- Amenities – As part of the decommissioning plan, opportunities for the O&M buildings and water tanks to be relocated to other sites will be investigated.

Reduce

- Onsite domestic waste will be sorted and recycled minimising waste destined for landfill.

4.3.8. Land and water

A. Contamination risks

Issue

Five submissions raised concerns of the contamination risk that the Project may present to the nearby area.

Submission ID

SE-74967711, SE-74918709, SE-74967716, SE-74967719, SE-74957743

Panorama BESS Project response

Contaminants most likely to be associated with the project include sediments from civil works, which can be transported in waterways or during windy conditions, release of stored fuels, lubricants, herbicides and risks of materials in the BESS units, if these are released into the environment. Disposal of solid waste can also be considered a contaminant.

Sediments and stored materials are considered highly manageable through standard environmental controls. These include sediment erosion controls and storage and bunding protocols.

The Preliminary Hazards Assessment (PHA) assessed the Project's risks including potential for chemical leaks from the BESS. The PHA identified potential release of electrolyte (liquid/ vented gas) from the battery cell, coolant leak and refrigerant leaks as possible contamination sources. The likelihood rating for these events resulting in consequences with controls in place was concluded as very unlikely. The controls that would be in place include:

- Equipment and systems will be designed and tested to comply with the relevant international standards and guidelines (as cited in the PHA)
- Equipment will be procured from reputable supplier
- Independent certifiers/owner's engineers
- Engagement of reputable contractors
- Maintenance will be done by trained personnel
- BESS layers of battery case (pod and external casing)
- BESS Battery Management System (BMS) fault detection and shut-off function
- Chiller Unit separation distance to other equipment
- Spill cleanup using dry absorbent material
- HVAC system (regulate air flow)
- BESS fire protection system (enclosure/building)
- PPE.

While the PHA did not identify any major offsite consequences or societal risk, management recommendations which form Project commitments were included in the EIS.

The EIS identified solid waste as one of the major potential pollutants caused by construction. Several construction activities would produce solid wastes, such as earth works, construction of buildings and array modules and rehabilitation activities. Most waste generated during the construction phase would be classified as building and demolition waste within the class general solid waste (non-putrescible). Other facilities in the site compound would also produce liquid wastes and sanitary (clinical waste).

All waste streams would be managed by a Waste Management Plan. A detailed waste management strategy will be prepared in accordance with definitions in the POEO Act and associated waste classification guidelines.

It is noted that an updated PHA has been prepared to address the change in technology now proposed (refer to the Amendment Report (NGH, 2025b)).

A Contaminated Land Assessment was also prepared in response to agency advice and is appended as Appendix D of this report. This Contaminated Land Assessment confirmed that there are no areas of contamination on site and therefore no additional mitigation measures are required.

- Findings of the Contaminated Land Assessment identified: The Northern Half of the site:
  - Is located north of the third order waterway.
  - Steeper sloping land with a south-westerly aspect.
  - Contains intact forests and woodlands.
  - No cropping observed.
- The Southern Half of the site:
  - Is located south of the third order waterway.
  - Vegetation predominantly cleared for cropping and land contouring (1972-1984).
  - Infrastructure development from 2014 to 2024.
  - Contains three dams receiving surface water runoff.
- No contaminated land records listed for the site.
- Construction of the substation occurred between 1972 and 1984, approximately 25m east of the site boundary.
- Waterways originate at topographic highs within the site or adjoining land with surface water flow from east to west.
- Good groundcover with no evidence of erosion and supported by local climate with year-round rain.
- Groundwater occurs Approximately 60m below ground level near the eastern boundary.

No areas of concern within the Project Site were identified at this stage. A Preliminary Site Investigation would be included as Project commitment, prior to disturbance of soil to determine absence / presence of potential contaminants. This addresses the low risk that they occur and ensure, if they occur, they will be managed appropriately.

4.3.9. Local climate

A. Increase in CO_2 emissions

Issue

One submission raised that construction of the Project would increase CO_2 emissions.

Submission ID

SE-74918716

Panorama BESS Project response

Mining and manufacturing processes do contribute to carbon dioxide (CO_2) emissions. For a BESS, this is primarily due to the resource generation / use (i.e. mining, processing, and transportation of raw materials like lithium), which are essential for battery production. These issues are addressed below in Section 4.3.11 and can often involve significant energy consumption and can result in greenhouse gas emissions.

However, during operation the BESS plays a crucial role in firming the grid so that more non-CO2 generation projects (e.g. wind and solar) can be supported. The Panorama BESS will assist in reducing overall CO_2 emissions by enabling the integration of renewable energy sources into the grid. As stated in the EIS, the Project would assist to further develop the renewable energy power supply network of NSW and directly

contribute to increasing the energy capacity and resilience to reach assist in achieving net-zero emissions by 2050. The CO_2 emissions during the manufacturing process can therefore be strongly justified.

Estimates suggest that utility-scale BESS have a carbon footprint ranging from 0 to 60 kg CO_2-eq/kWh (NSW Government, 2024) compared to typical coal-fired power plant emits approximately 1kg of CO_2 per kWh of electricity generated.

4.3.10. Socio-economic impacts

A. Impact on property values

Issue

Two submission raised concerns that the development of a BESS would negatively impact property values.

Submission ID

SE-75031464, SE-75049460

Panorama BESS Project response

Securing land values is not required for any development application in NSW, although it is expected that the consent authority will carefully consider the impacts on neighbours. Throughout the EIS process, the Project sought to avoid unacceptable impacts on neighbours through design and other management devices. The EIS demonstrated that the Project could avoid these impacts as it achieves:

- No greater than negligible / very low visual impact for any local viewpoint
- No greater than negligible / very low visual impact for any residence
- No operational noise exceedance of applicable criteria for any non-associated receivers
- Limited construction noise exceedance for two receivers related to truck movements.

Land valuation is highly site specific and as such it is difficult to provide a definite answer. Large changes in land and house prices over recent years across the country attest to the fact that drivers can also be external from the local area (e.g. the ‘tree change’ movements in 2020 were the highest in two decades (ABS 2020). At present, the land value driver at the Project site and its immediate surroundings is considered likely to be primarily related to its agricultural production capacity.

The mapped land use for the majority of the Project Site (which includes the Development Footprint) is cropping. According to the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES, 2025), land used for cropping makes up 28.2% (1,982,994ha of the total 7,029,800ha) of the land use in the Central West region. The Development Footprint would utilise only approximately 5ha of cropping land. As such, the impact on the agricultural production capacity within the region would be minimal.

The EIS also notes that the impact on agricultural production as a result of the change in land use would be low. The Project has applied the government guidelines and has undertaken a thorough assessment of visual, noise, agricultural and social impacts in accordance with this guidance and committed to mitigation strategies to address the impacts identified. By appropriately siting the Project and its scale to ensure no greater than very low / negligible visual impact and the provision of community grants to spread the economic benefits of the Project, the Project demonstrates it would not have a significant impact on the locality or on neighbours.

Furthermore, the Project has undertaken an additional visual impact assessment in response to public submissions and is committed to providing visual screening as part of the Project. (refer to the Amendment Report (NGH, 2025b))

B. Ethical concerns including modern slavery

Issue

Three submissions raised concern that the Project might support slavery, noting several components required for the BESS may be produced unethically.

Submission ID

SE-74920462, SE-74957755 SE-74807218,

Panorama BESS Project response

The Project supports applying the highest possible levels of sustainability throughout the supply chain. It is noted that this is an industry wide issue. As an industry body, the Clean Energy Council is committed to addressing and mitigating modern slavery risks across renewable energy operations and supply chains at an industry wide level in Australia.

The Applicant is committed to respecting internationally recognised human rights standards in their activities, all over the world and adheres to the principles set out in:

- The Universal Declaration of Human Rights
- The United Nations Guiding Principles on Business and Human Rights as endorsed by the UN Human Rights Council in 2011
- The Fundamental Conventions of the International Labour Organisation
- The United Nations Global Compact
- The Voluntary Principles on Security and Human Rights
- The Organization for Economic Cooperation and Development (OECD) Guidelines for Multinational Enterprises

4.3.11. Resource generation / use

A. Reliance on imported materials and overseas resource extraction

Issue

Two submissions raised concerns on the resource generation and use required for the Project.

Submission ID

SE-74920462, SE-74875470.

Panorama BESS Project response

Imported materials are essential for producing BESS developments; this is an industry wide issue that is not specific to this Project. The Project is committed to improving sustainability and reduce environmental impacts and ethically sourced material through supply chains.

The Project objectives are as follows:

- Increase local employment and investment opportunities during construction
- Add significant benefits to the NSW electricity grid because it allows for the dispatch of energy in accordance with market demand to assist in load leveling and grid support to balance the natural fluctuations in electricity demand throughout the day and reduce congestion on the local grid
- Play an important role in providing stability to the NSW energy network by charging up during the day when renewable energy generation is high and then providing that power back to the grid at night to support high demand; and
- The BESS is located along a major transmission route which is in line with the Federal Government's direction to improve the affordability and security of the national energy market while also delivering on international climate commitments.

4.4. Justification

4.4.1. Justifications

A. Public subsidies

Issue

One submission stated that Project would be an improper use of public subsidies.

Submission ID

SE-74957740

Panorama BESS Project response

No funding from public grants or subsidies has been received for this Project.

B. Lifespan of Project questioned

Issue

One submission questioned the short, estimated lifespan of the Project.

Submission ID

SE-74918709

Panorama BESS Project response

The EIS states that the operational lifespan expectancy of the Project is 20 years. SSD approvals, such as this one, are considered indefinite, and may be refurbished as required. Upgrades may require further assessment.

C. Grid supply capability questioned

Issue

Two submissions raised concerns of the capability of the Project to support the grid.

Submission ID

SE-74967708, SE-74967716

Panorama BESS Project response

Utility scale batteries, like the Project, aid in increasing NSW and the nation's energy security by providing dispatchable energy on demand during troughs in variable renewable energy outputs and are regulated by the NSW government.

1. They are proven to provide dispatchable renewable energy to the grid.
    a. They can rapidly respond to fluctuations in electricity supply and demand, helping to balance the grid and ensure a reliable power supply. By storing excess electricity during periods of low demand and releasing it during peak demand, batteries help smooth out the intermittent nature of renewable energy sources like solar and wind, making them more reliable and predictable. This enhances the grid's ability to handle intermittent renewable energy, reduces curtailment of renewable generation, and maximises the utilisation of clean energy resources.
2. Utility-scale batteries can support grid operations and enhance their reliability and resilience:
    a. They can deliver services such as frequency regulation, voltage support, and reactive power control. These services help maintain grid stability, improve power quality, and enhance the overall reliability and resiliency of the electrical system.
    b. Utility-scale batteries can enhance grid resiliency by providing backup power during emergencies or power outages. They can quickly respond to disruptions, ensuring continuity of critical services and reducing downtime. In areas prone to extreme weather events or where grid infrastructure is less reliable, batteries can play a crucial role in maintaining power supply and supporting essential operations.
3. By enabling the integration of renewable energy and displacing fossil fuel-based generation during peak demand, utility-scale batteries contribute to significant emissions reductions. They help reduce greenhouse gas emissions, air pollution, and dependence on fossil fuels, thereby supporting climate change mitigation efforts and promoting a cleaner and more sustainable energy system.

The Project acknowledges that continued advancements in battery technologies, coupled with falling costs, will further contribute to their effectiveness and widespread deployment in utility-scale applications over the coming years.

D. Low cost benefit / expensive development

Issue

Seven submissions raised concerns around the cost benefit and the perceived high cost to develop the Project, along with the Project increasing electricity prices

Submission ID

SE-74918709, SE-74918716, SE-74873461, SE-74957746, SE-74967708, SE-74918716, SE-74918709

Panorama BESS Project response

The Project would bring a large capital investment to NSW; the estimated development cost is $143 million. While most of this cost will be attributable to imported BESS units, local spends will occur in:

- Environmental assessment and management
- Civil works and operational management

In addition, the construction and operation of the Project will have net positive impacts on the level of economic activity in the regional economy. The Project has proposed to work in partnership with the Bathurst Regional Council and the local community to help maximise the projected economic regional benefits. In this respect, a range of general economic mitigation and management measures which form commitments of the Project, pending approval:

- Employment of regional residents where they have the required skills and experience and can demonstrate a cultural fit with the organisation
- Participating, as appropriate, in business group meetings, events or programs in the regional community
- Locally sourcing non-labour inputs to production where local producers can be cost and quality competitive; and
- Provision of community grants through various initiatives and programs within the local community, including the education, arts, sporting, and culture sectors.

BESS developments such as the Project can also assist to drive down consumer electricity prices by improving the efficiency and reliability of the grid by and overall providing a cost benefit through:

- Storing excess energy during periods of low demand and release it during peak demand times. This helps reduce the need for expensive peaking power plants, which can lower overall electricity costs
- Providing grid stability and reducing the need for additional infrastructure investments
- Facilitating the integration of renewable energy sources like solar and wind
- Energy arbitrage, where electricity is bought at low prices during off-peak times and sold at higher prices during peak times.

The estimated development cost of the Project is $143 million. Due to the smaller scale of BESS Projects, development costs are generally lower that other SSD developments throughout NSW.

Furthermore, BESS developments such as the Project can help drive down consumer electricity prices by improving the efficiency and reliability of the grid by and overall providing a cost benefit.

E. Support for renewable energy transition

Issue

One submission showed support for the renewable energy transition.

Submission ID

SE-74848208

Panorama BESS Project response

The Project aims to aid in the States and Australia's move from more coal-powered electricity generation to renewable energy. The Project will support renewable energy industries across wind power generation, large-scale solar energy, and bioenergy generation through providing an operational BESS facility that will support the increase in renewable energy project development within the region.

It is acknowledged that the rapid transition to more renewable energy is causing disruption to regional communities where most new infrastructure will be located. However, by continuing engagement with the

local community and demonstrating how the Project can be responsive to the locality's environmental and social context, the Project aims to be one which can be supported by the local community.

4.5. Beyond the scope of the Project

4.5.1. Beyond the scope of the Project

A. Issues accessing EIS document

Issue

13 submissions noted that they were unable to access the EIS during the exhibition period.

Submission ID

SE-74919239, SE-74967711, SE-74957753, SE-74967714, SE-74957734, SE-74957746, SE-74967716, SE-74967719, SE-74957750, SE-74957755, SE-74967708, SE-74957740, SE-74957743.

Panorama BESS Project response

Several submissions noted that the EIS was unavailable for viewing during the exhibition period. The Department of Planning, Housing and Infrastructure (DPHI) noted there was a disruption to the exhibition of the EIS and as a result extended the exhibition dates an extra two days. DPHI was aware of this.

B. Comments regarding generation Project – justification for renewable energy generation – alternatives to renewable energy generation.

Issue

Two submissions suggested that alternative energy generation technologies would be better suited.

Submission ID

SE-74967711, SE-74807218

Panorama BESS Project response

The driver for the rapid development of renewable energy generation in regional areas is climate change. The contribution of these projects is recognised as important part of the NSW Government's commitment to Net Zero and Climate Change Policy Framework (OEH, 2016). The Project is in alignment with these policies.

While government funding is assisting in support infrastructure such as transmission line upgrades to the Renewable Energy Zones, no funding from the public purse has been received for this Project

5. Agency submissions

Agency submissions are paraphrased below.

The Applicant's responses are shown in italic text beneath each statement/query/request for clarification.

5.1. Bathurst Regional Council

Strategic Context

The site is located in an area that is zoned rural. Land to the north is zoned R5 Large Lot Residential. A significant part of the land zoned R5 Large Lot Residential whilst zoned is yet to be developed. Residential development, in the form of rural residential housing, has the potential to extend closer to the proposal than currently exists. This should be acknowledged and considered in the assessment process.

Applicant Response

The Project notes that the requirements of R5 – Large Lot Residential zoning is designed to provide residential housing in rural settings, focusing on preserving the environment, scenic quality, and promoting rural lifestyles. In alignment with these objectives the Project reviewed both the visual and noise impacts in the lot to the north of the Panorama BESS project zoned R5 – Large Lot Residential, as per below.

Landscape and Visual Impact Assessment (LVIA)

The LVIA was revised to assess the lots to the north of Panorama BESS which are Zone R5 – Large Lot Residential. The viewshed analysis demonstrated that the terrain elevation north of the Proposed BESS Facility provides visual containment, limiting the extent to which the infrastructure components are visible from external viewpoints. This evidence confirms that the proposed development is responsive to the existing landscape and topography, thereby meeting the objective of Zone R5 by preserving the visual amenity of the locality.

Noise and Vibration Impact Assessment (NVIA)

The NVIA was revised to address the noise contours within the R5 zoned area. It was confirmed that the limiting 40 dBA noise contour falls outside the R5 lot, thereby complying with the daytime noise criteria of 40 dBA. Additionally, the evening and night time noise levels comply with the 35 dBA criterion. Therefore no design changes or additional mitigation measures were required.

Aboriginal Cultural Heritage

The site is located within broader Mount Panorama/Wahluu precinct. Mount Panorama/Wahluu has been the subject of number of investigations into both tangible and intangible aboriginal cultural heritage. The site of the development is located within an area identified as the "Outline of the fallen Warrior Wahluu" identified by Aboriginal Heritage Information Management System (AHIMS) Site ID 44-3-0280.

The current Aboriginal Cultural Heritage Assessment Report (ACHAR) does not reference broader Bathurst Regional Local Government Area Aboriginal Heritage Study 2017 as a foundation document or the broader cultural importance of Mount Panorama/Wahluu.

Council notes the ACHAR has identified a number of items of ACH which will be impacted during the construction process. The intention being to relocate these items nearby in consultation with Aboriginal stakeholders and provided ongoing protection.

Applicant Response

The ACHA Report was updated to reference the broader Bathurst Regional Local Government Area Aboriginal Heritage Study 2017, recognising and acknowledging the wider cultural significance of Mount Panorama/Wahluu. The inclusion of this study did not alter the outcome of the ACHAR and therefore no design changes or additional mitigation measures were required.

Traffic and Access

Council notes that access will be provided from the Mid-Western Highway. The Mid-Western Highway is a classified road. The proposal relies upon Council roads, notably Evans Plains Creek Road, for the purposes of providing heavy vehicle access to the site. Evans Plains Creek Road is currently a low volume rural road. It is partly sealed. Approximately 2.8km of Evans Plains Creek Road remains unsealed.

For the purposes of the assessment the proposal should be considered a “traffic generating development” under Council’s adopted Section 7.11 Contributions Plan. During the construction phase, it will generate heavy vehicle traffic movements over and above what would reasonably be considered as being for traditional agricultural or residential purposes. Council notes that it is collecting Section 7.11 Contributions under its adopted Bathurst Regional Rural Roadworks Section 7.11 Plan towards the upgrading (sealing) of the unsealed sections of Evans Plains Creek Road. The contributions would be used for the sealing of Evans Plains Creek Road as contemplated under this Plan.

Applicant Response

The Applicant recognises that the project will utilise a Council road, specifically Evans Plains Creek Road, to facilitate heavy vehicle access to the site during construction. Discussions with Bathurst Council have determined that contributions for the use of Evans Plains Creek Road will be managed through a Voluntary Planning Agreement (VPA), in accordance with DPHI’s Benefit-Sharing Guideline (Nov 2024). A copy of the VPA will be uploaded concurrently with this Submissions Report.

Landscape and Visual Assessment

The Landscape and Visual Assessment (LVIA) concludes that for certain residential receivers the visual impact is “moderate”. The Assessment also concludes that the visual impacts is to be mitigated by ensuring that “all visible infrastructure elements to blend with its surrounding context by colour matching with natural elements”. The Assessment also recommends that “the proposed development consider the options of mitigation measures to meet the local and planning objectives in protecting and enhancing the rural scenic views and vistas. These characterise Bathurst regional by visually integrating it so that it blends in with its surrounding context”.

The summary of mitigation measures recommends that a “visual management plan (VMP) is proposed to be prepared prior to works which will document a range of mitigation measures. If possible, the intention is to colour all visible infrastructure elements to blend with its surrounding context by colour matching with natural elements. If required, further consideration of landscaping and screening will be applied”.

It remains unclear as to the extent to which any of the infrastructure can by colour matched to natural elements whatever that may mean. The inclusion of “if possible” and “if required” does not provide any

particular certainty as to the final treatments being implemented and therefore the extent to which this moderate impact may be mitigated remains unresolved.

Applicant Response

The Applicant acknowledges Bathurst Council's concerns about the absence of specific details concerning visual mitigation strategies in the initial EIS submission. In response, the LVIA has been revised to incorporate a Landscape Concept Plan that outlines a concept design for proposed mitigation measures. This plan includes the installation of 3.0m high perforated screen panels along the northern, western, and southern boundaries of the BESS Facility.

These screens will be coloured to blend in with vegetation of the surrounding area. Colour options are provided within the Landscape Concept Plan and final selection will be determined in consultation with Council.

Hazard and Risk

The Hazard and Risk Assessment suggests the installation of a secondary access road from the BESS connecting to the Mid-Western Highway. The impact of the construction of a secondary route is not considered elsewhere in the submitted documentation, e.g., potential for additional access to Mid-Western Highway.

Applicant Response

Based on feedback from Bathurst Regional Council, the secondary access road was removed from the Hazard and Risk Assessment. No further actions required.

5.2. Biodiversity Conservation and Science

Biodiversity development assessment report (BDAR) waiver

If the proposed development were amended so that it is no longer the same as described in Schedule 1 of the BDAR waiver determination, the applicant would need to lodge a new waiver request or prepare a BDAR. We confirm that if the proposed development remains consistent with Schedule 1 of the BDAR waiver determination, our previous BDAR waiver letter dated 11 April 2023 (our ref DOC23/2738448) remains valid and no further assessment by BCS is required.

Applicant's response

BDAR waiver

An updated BDAR waiver was sought for the changes outlined in the Amendment Report (NGH, 2025b), and will be submitted concurrently with the Amendment Report*. The area of impact has increased from 3.47ha to 5.18ha. No significant impact on local biodiversity values is anticipated from the updated Development Footprint.*

5.3. Crown Lands

No comments

5.4. NSW Department of Climate Change, Energy, the Environment and Water

Water supply

The proponent should clarify the ability to obtain a secure water supply of the project, and confirm relevant agreements are in place where required.

The preferred option to meet the project's water demands (maximum approximately 7.3ML/year during the construction phase) is to cart water from water supply stations managed by Bathurst Regional Council. An agreed arrangement with council is requested that demonstrates the Project's construction and operation water demands can be met using this option, and that alternative water supply arrangements (which may need to be licensed under the Water Management Act 2000) are not required.

Applicant's response

Water supply

Construction water requirements for the Project are estimated between 10,000 to 20,000L per day. It is intended to source this water from the Bathurst Regional Council's bulk water supply which can be accessed through several water filling stations located in Hereford Street within the Bathurst township.

The proposal will include a static water tank for fire-fighting purposes. This water would only be used for firefighting and not for potable water supply nor for general non-potable site water use. The size and location of the tank will be confirmed during the detailed design stage, but will be a minimum of 20,000L dedicated water supply for firefighting purposes.

The Applicant has been in discussions with Council regarding obtaining a water supply agreement. Please refer to Appendix C.

5.5. Department of Primary Industries and Regional Development

Agricultural impacts

We find the issues impacting agricultural production on and in the vicinity of the project site are likely to be minor or negligible, provided construction and operations are conducted as described.

Decommissioning

The complete decommissioning of the site is generally supported. However, the Department recommends that this specifically includes removal of underground infrastructure to a depth of 500mm.

Pest and weed management

We recommend that a Pest and Weed Management Plan is prepared to address biosecurity, weed and pest impacts, as part of Construction and Operational environmental Management Plans and the Decommissioning Environmental Management Plan.

Applicant's response

Agricultural impacts

Noted. No changes to the construction and operation phases of the Project in relation to agricultural impacts have been altered

Decommissioning

Noted. The Amendment Report has detailed that the decommissioning phase of the Project would include includes removal of underground infrastructure to a depth of 500mm. This will also be reflected in a post-approval Decommissioning Environmental Plan.

Pest and weed management

A Pest and Weed Management Plan will be developed as a post-approval document that address biosecurity, weed and pest impacts.

5.6. Fire and Rescue NSW

Fire safety and management measures

FRNSW notes the proposal of a 100MW/200MWH Battery Energy Storage System (BESS). BESS facilities pose special problems of firefighting and special hazards exist that may require additional fire safety and management measures. Should this project be approved FRNSW make the following recommendations:

- That a Fire Safety Study (FSS) is developed in accordance with the requirements of Hazardous Industry Planning Advisory Paper (HIPAP) No.21 [2] and submitted to FRNSW for review.
    - The FSS is to be developed to the satisfaction of FRNSW prior to any further submission being made to FRNSW; this includes: an Initial Fire Safety Report (IFSR) and / or Performance-Based Design Brief / Fire Engineering Brief Questionnaire (FEBQ).
    - The FSS should be prepared consistent with the FRNSW Fire Safety Guideline Technical Information – Large scale external lithium-ion battery energy storage systems – Fire safety study considerations [3].
- Prior to occupation or commissioning an Emergency Plan (EP) is developed for the site in accordance with HIPAP No.1 [4].
- Prior to occupation or commissioning an Emergency Services Information Package (ESIP) be prepared in accordance with FRNSW fire safety guideline – Emergency services information package and tactical fire plans [5].
- Prior to occupation or commissioning an Emergency Responders Induction Package is developed for the site in consultation with, and to the satisfaction of FRNSW. The package should inform first responders of site-specific features and safety measures to ensure they are able to undertake their

[2] Hazardous Industry Planning Advisory Paper No 2 – Fire Safety Study Guidelines

[3] Tech info sheet - Large-scale external LiBESS - Fire safety study considerations Version 01

[4] Hazardous Industry Planning Advisory Paper No 1 – Emergency Planning

[5] Policy

duties effectively in accordance with agency specific Standard Operational Guidelines. The format of the Induction Package should be such that it can be readily shared across all agencies.

Applicant's response

Fire safety and management measures

The Applicant is committed to developing a Fire Safety Study (FSS), Emergency Plan (EP), Emergency Services Information Package (ESIP) and Emergency Responders Induction Package for the Project.

5.7. Heritage NSW

Aboriginal Heritage Information Management System (AHIMS) search

Heritage NSW notes that the AHIMS search is greater than 12 months old at the time of submission. Please update the AHIMS search.

Recommended draft conditions

Below are the recommended draft conditions for the protection of Aboriginal heritage:

- All reasonable steps must be taken to avoid harm, modification of or impact to Aboriginal objects except as authorised by this approval
- Then Registered Aboriginal Parties must be kept informed about the SSD. The RAPs must continue to be provided with the opportunity to be consulted about the Aboriginal cultural heritage management requirements of the SSD.
- A procedure for the management of unexpected Aboriginal objects and human remains must be developed in consultation with the RAPs and Heritage NSW. The procedure must be prepared in accordance with Heritage NSW guidelines and codes of practice and must be implemented for the duration of the project.

Applicant's response

Aboriginal Heritage Information Management System search

An updated AHIMS search was undertaken on 11 March 2025. The results from the AHIMS search identified 97 previously recorded sites within a 7.5-kilometre radius of the study area (three more sites than was identified in the EIS). No additional sites were identified within the Project Footprint.

Refer to the following table for further details on the number of occurrences per type.

Table 5-1 Summary of AHIMS search results within 7.5km

Feature Type	Total	%
Artefact	51	53%
Modified Tree (Carved or Scarred)	10	10%
Stone Arrangement	7	7%
Aboriginal Ceremony and Dreaming	5	5%
Aboriginal Ceremony and Dreaming, Ceremonial Ring (Stone or Earth), Stone Arrangement	2	2%
Aboriginal Resource and Gathering	2	2%
Artefact, Potential Archaeological Deposit (PAD)	2	2%
Potential Archaeological Deposit (PAD)	2	2%
Restricted	2	2%
Aboriginal Ceremony and Dreaming, Burial, Ceremonial Ring (Stone or Earth), Modified Tree (Carved or Scarred)	1	1%
Aboriginal Ceremony and Dreaming, Ceremonial Ring (Stone or Earth), Potential Archaeological Deposit (PAD), Stone Arrangement	1	1%
Aboriginal Ceremony and Dreaming, Earth Mound	1	1%
Aboriginal Ceremony and Dreaming, Potential Archaeological Deposit (PAD)	1	1%
Aboriginal Ceremony and Dreaming, Stone Arrangement	1	1%
Aboriginal Resource and Gathering, Aboriginal Ceremony and Dreaming	1	1%
Aboriginal Resource and Gathering, Aboriginal Ceremony and Dreaming, Conflict, Fish Trap	1	1%
Aboriginal Resource and Gathering, Aboriginal Ceremony and Dreaming, Stone	1	1%

Feature Type	Total	%
Arrangement		
Aboriginal Resource and Gathering, Water Hole	1	1%
Artefact, Grinding Groove	1	1%
Burial	1	1%
Ceremonial Ring (Stone or Earth)	1	1%
Conflict	1	1%
Stone Quarry, Artefact, Stone Arrangement	1	1%

Recommended draft conditions

The recommended draft conditions have been detailed in the updated ACHA prepared by Austral Archaeology and included in Appendix B of this report and set out below:

- *. All reasonable steps must be taken to avoid harm, modification of, or impact to Aboriginal objects except as authorised by issued Heritage NSW approval.*
- *The Registered Aboriginal Parties must be kept informed about the SSD. The Registered Aboriginal Parties must continue to be provided with the opportunity to be consulted about the Aboriginal cultural heritage management requirements of the SSD.*
- *A procedure for the management of unexpected Aboriginal objects and human remains must be developed in consultation with the Registered Aboriginal Parties and Heritage NSW. The procedure must be prepared in accordance with Heritage NSW guidelines and codes of practice and must be implemented for the duration of the project.*

5.8. Transgrid

No comments

5.9. Rural Fire Service

Planning for Bush Fire Protection

Based upon an assessment of the information provided in Section 5.0 - Bushfire Risk and Management Assessment in The Hazard and Risk Assessment Battery Energy Storage System (BESS) Panorama BESS, SSD 50587460 report, (prepared by SLR Consulting Australia Pty Ltd, Project No.: 660.30234.00000, dated 20 March 2024, Revision: 06d), the NSW RFS considers the proposal can comply with Planning for Bush Fire Protection 2019, and is supported subject to the implementation of the recommendations contained in the report.

Bush Fire Emergency Management and Evacuation Plan

A copy of the Bush Fire Emergency Management and Evacuation Plan is to be provided to the Chifley/Lithgow Fire Control Centre which is responsible for the Bathurst Local Government Area.

Other fire or HAZMAT related issues

It should be noted that the NSW RFS has assessed this proposal for compliance with Planning for Bush Fire Protection 2019. Should other fire or Hazardous Materials (HAZMAT) related issues be identified, they should be referred to the appropriate agency for comment.

Applicant's response

Planning for Bush Fire Protection

Noted. The safeguards and mitigation measures detailed in the EIS will be implemented into post-approval management plans, and form part of the compliance and monitoring documentation for the Project.

Bush Fire Emergency Management and Evacuation Plan

A copy of the Bush Fire Management and Evacuation Plan will be provided to the Chifley/Lithgow Fire Control Centre upon approval of the Project.

Other fire or HAZMAT related issues

Noted. At this stage, no additional fire or HAZMAT related issues have been identified.

5.10. DPI NSW Resources

No comments

5.11. Transport for NSW

Traffic Characteristics

1. The Safe Sight Intersection Distance (SISD) assessment for the proposed site access within the TIA identifies the sight distance achieved is 270 metres to the west, 30 metres short of the required 300 metres (100km+10km/hr for a 2.5 sec reaction time). The SISD assessment is to be revised to identify measures to achieve compliant SISD for the design speed.

2. A turn warrant assessment has not been provided for the intersection of Mitchell Highway and Evans Plains Road and the turn volumes provided for the proposed site access warrant a BAL/BAR yet only a BAL is proposed at this access intersection. Further, the figures provided in the turn warrant assessment in Appendix F warrant a higher turning treatment of a BAL/CHR(s). Noting light vehicles movements into the site (right turn only) trigger the higher turning treatment (CHR(s)), the development will need to either provide for the higher turn treatment or demonstrate that traffic volumes can be within the lower order treatment.

A revised turn warrant assessment is required for the site access and intersection of Mitchell Highway and Evans Plains Road. The turn warrant assessments are to be prepared in accordance with Part 6 Austroads Guide to Traffic Management (AGTM) and must be assessed on the conservative traffic scenario, defined below:

- Peak project traffic volumes applied to background traffic during network peak hours.
- Growth rates applied linearly to peak construction and background traffic volumes.
- Cumulative traffic volumes applied to background and turning volumes (where applicable) of other Major Projects at EIS or approved stage that will be present in the background and turning volumes during pre-construction and construction background peak hours.

3. Updated traffic volumes are required that breakdown AM/PM peak vehicle distribution as well as ratio of light to heavy vehicles for both the site access and the intersection of Mitchell Highway and Evans Plains Road.

4. The development proposes a left in and left out for heavy vehicles and a right in and left out for light vehicles. Details of the measures to be employed to ensure compliance with these arrangements and safety on the public road network during construction, operation and decommissioning of the project is required. This includes enforcement to managing traffic volumes, driver behaviour and access paths to the site.

Note: This excludes use of temporary traffic mitigation measures as identified in Austroads and TfNSW requirements. Temporary traffic mitigation measures are only permitted for activities occurring in the road reserve.

5. The Environmental Impact Statement (EIS) mentions projects which may have overlapping schedules with the proposal, however, this information has not been included in the TIA. An assessment should be undertaken in the TIA to identify projects that will have overlapping construction periods and assess the cumulative traffic impacts with emphasis on the following:

- Cumulative impacts from traffic generated from construction workforces in terms of the origin - destination routes, access and AM/PM peaks that overlap with other projects.
- Cumulative impacts of heavy vehicle movements in terms of AM/PM peaks and routes that overlap with other projects.
- Cumulative impacts and considerations in relation to the timing of movements of OSOMs where other projects will be utilising the same routes as proposed for this development.
- Further consideration identifying accommodation (and transport) needs and facilities available within the local region to service the proposed project's staff, in addition to understanding cumulative impacts of concurrent accommodation (and transport) needs of staff from other projects.

Applicant's response

1. The updated Traffic Impact Assessment (refer to Appendix D details that a site inspection was undertaken on the 31 October 2024. During the site inspection, laser-guided range finders were used to obtain accurate readings. In addition, high-resolution NearMap imagery was used to obtain the topographical data. The SISD as presented in the updated TIA show that the West Approach Sight Distance is approximately 306m and the East Approach Sight Distance is approximately 412m. The updated SISD distances satisfies TfNSW's requirements.

2. An updated turn warrant assessment was undertaken for the Evans Plains Road / Mitchells Highway intersection and is detailed in the updated TIA. The TIA concluded that due to the very low through and turning volumes, BAL and BAR treatments would be sufficient at the intersection of Mitchell Highway and Evans Plains Road. Notwithstanding, this intersection readily has channelised turn treatments, which are already higher order than BAL and BAR treatments. On this basis, no additional upgrades are warranted or proposed.

3. Updated tube surveys were undertaken to provide updated traffic volumes (refer to Appendix D of the TIA). This survey identified AM/PM peak vehicle distribution as well as ratio of light to heavy vehicles for both the site access and the intersection of Mitchell Highway and Evans Plains Road.

4. The updated TIA details that a Construction Traffic Management Plan (CTMP) will be developed pending approval of the Project. To ensure that vehicle movements during construction are completed in a safe manner the following aspects will be considered for inclusion in the CTMP:

- *Drivers Code of Conduct*
- *Traffic Guidance Schemes*
- *Site management*
- *Heavy vehicle management*

Oversize and Overmass (OSOM) vehicles

6. OSOM vehicle for the transformer is classified as high risk OSOM (as defined on TfNSW website in this link) due to its proposed height exceeding 5.20m. A Concept Level Route Analysis is required with the following information:

- The route from port or point of origin to site access and intersections required to facilitate high risk OSOM movements required for the project.
- Details of all high risk OSOM loads and vehicle configurations for the project.
- Location of pull-over bays / rest areas along the high risk OSOM routes (including GPS coordinates) and demonstration swept paths of high risk OSOMs can be physically accommodated (in terms of size, width and accessibility).
- Road geometry details and alignment along identified transport route(s), including existing formations, crossings, bridges, intersection treatments and any identified hazards, including:
    - Bridge Assessments for any at risk bridges on the classified road network due to dimensions and weight of OSOM vehicles.
    - Swept path analysis demonstrating the largest design vehicle can enter and exit the site and simultaneously pass through intersections along the proposed transport route(s).
    - Design vehicle templates used in the swept path analysis software in order for TfNSW to review performance (e.g. Autodesk Vehicle Tracking or Transoft AutoTURN).
    - Highlighting each at-risk road structures that haulage route(s) cross including bridges, traffic signals, signage, major culverts and minor culverts that may not meet desirable cover to cater for proposed axle loads.
- Identify and provide the following measurement parameters of OSOM components / materials to be moved:
    - Types and numbers of high risk OSOM vehicles.
    - Overall combination type, configuration, load and vehicle configuration.
    - Wheelbase dimensions.
    - Length, width, height and mass (GCM, tare, weight to axle and payload) for components and nominated vehicles.
    - Maximum trailer articulation angle(s).
    - Minimum overhang heights above the road surface.
    - Vehicle configurations.
    - Traffic mitigation measures or road works, modifications or road upgrades to facilitate the movement of high risk OSOM(s).

    - Potential high level mitigation measures or commitments to mitigate known traffic, safety and impacts to road users along the high risk OSOM route(s) (i.e school bus routes, mining shift changes, TSRs, harvest periods and events).
- Identify and assess implications of any road and rail projects that may be under construction during the indicative schedule for the OSOM movements.

Note: NHVR permits do not cover road works or upgrades and environmental approvals required for proposed OSOM route(s). Any road works or upgrades works required along the OSOM route must be included within scope of works in the SSD to ensure constructability.

7. A description of all non-high risk OSOM vehicles and materials to be transported is required. The shortest and least trafficked route is to be given priority for movement of materials and machinery to minimise risk and impact to other motorists, so far as is reasonably practicable.

Applicant's response

5. A review of potential cumulative impacts included the Major Projects website, Infrastructure NSW website and Bathurst Regional Council DA tracker. The review indicated that there are no major development projects or transport infrastructure upgrades planned by the state or local Council in the surrounds of the study area that could result in increased cumulative traffic.

6. The Applicant commissioned ARES Group, a heavy material transportation specialist (trucking firm), to undertake an OSOM material transportation route study. This study includes all the requirements requested by TfNSW in their submission. This study is detailed in Appendix D of the TIA.

7. Non high risk OSOM: Section 2.4.4 addresses the OSOM required for the transformer.

Strategic Designs

8. TfNSW is not able to assess the suitability of the proposed site access due to lack of suitable information. Any road upgrades along state classified roads are to be accompanied by Strategic Designs, prepared in accordance with TfNSW Strategic Design Requirements for DAs Strategic design requirements for DAs - February 2022.

In addition to these requirements the Strategic Designs will need to be accompanied by revised swept paths for the design vehicle and OSOM vehicle entering the site and accessing the intersection of Mitchell Highway and Evans Plains Road. The swept paths must demonstrate the design vehicle can turn concurrently in all directions without crossing into the incorrect lane, tracking off the proposed/existing pavement and within the proposed/existing intersection treatment. Swept paths for OSOMs will need to demonstrate manoeuvrability within the existing or proposed pavement or, detail further pavement widening to accommodate movements.

9. Information is required to verify existing road drainage system (including longitudinal drainage) will accommodate post-development discharge. TfNSW requires post-development flows be managed using interface drainage and/or subsurface drainage to convey 1% Annual Exceedance Probability. The strategic concept designs are to be revised to address this point.

10. Updated plans are required to show subsurface utilities located to QL-B (AS5488-2022) or better.

11. Updated plans are required to clearly show site boundary and road reserve based on a survey.

12. There are concerns over current location of the site access due to the following constraints:

- The curve in the road restricts SISD compliance, particularly towards the west.

- The site access is located at the bottom of a vertical grade, where speed is likely to be higher, potentially causing issues for heavy vehicles trying to slow down to access the site.
- The short distance between the site access and an existing bridge west of the site (approximately 40m).

If the above issues cannot be addressed an alternative location to the site will be required.

Applicant's response

8. Required Strategic designs provided in Section 2.4.4 and Appendix H of updated TIA. These designs include the requested swept paths that confirm site accessibility.

9. *The proposed site access widening will grade towards the existing swale drains to the north of Mid-Western Highway, adjacent to the site access. The increase in impervious area for the site access widening is considered to be negligible, with no material impact on the existing road drainage system. The existing culvert at the site access location will require lengthening to suit the proposed site access as presented on our Strategic Design (Appendix H of the TIA).*

10. The attached Strategic Design has been undertaken based on the survey data prepared by Metropolis City Surveyors (refer to attached drawing N20879 dated 07/02/2025). The surveyor has confirmed that any services identified within the works extents are located to QL-B.

11. Refer to response to 10. Above.

12.The updated TIA reviewed the SISD proposed in the EIS and determined that the curve in the road does not restrict the compliance of the required SISD. Refer to Section 5.1of the updated TIA. The Project reviewed the speed data from the ATC surveys, 85th percentile speeds near the site access (101km/h) are consistent with the posted speed limit (100 km/h). No issues are predicted. The distance between the site access and an existing bridge west of the site does not prevent the Project from constructing the proposed BAL treatment. Bathurst Regional Council raised no issues with the use of Evans Plains Road. It is proposed that heavy vehicles not exceed 60 km/h on Evans Plains Road.

General comments

- The use of Evans Plains Road will require consultation with the relevant Council due to being a local road. Please note the TIA states Evans Plains Road is a low-speed road, however as a rural road with no sign posted speed limits the default rural 100km/h speed limit applies.

13. It must be clear where changes have been made in the revised TIA, this can be in the form of a document with tracked changes or an excel sheet detailing where changes have been made.

Applicant's response

13. A tracked changes version of the TIA will be lodged on the portal along with this Submissions Report (NGH, Response to Submissions Report, 2025a).

6. Project justification

6.1. Evaluation, subsequent to Project changes

In response to the submissions received, several aspects of the Project have been updated to strengthen the Project's mitigation strategies and provide greater certainty with regard to the management of impacts. These include:

- Visual screening by way of metal perforated sheets have been proposed along the western, northern and eastern boundaries of the Project Site.
- Updated technical reports including traffic, visual and land contamination have been prepared in response to submissions received and are appended in Appendix D.

An Amendment Report (NGH, 2025b) has been prepared to address the changes proposed to be made to the Project. These changes include:

1. Change in technology of the battery energy storage from the Solbank 2.0 system to the Solbank 3.0
2. Increase in the Development Footprint to facilitate civil battering and realignment to improve safety and stability.

The updated specialist reports prepared to supplement the Amendment Report are:

- Aboriginal Cultural Heritage Assessment
- Biodiversity Development Assessment Report Waiver
- Preliminary Hazard and Bushfire Assessment
- Noise and Vibration Impact Assessment

All other Project infrastructure elements remain as presented in the EIS.

6.2. Ecologically sustainable development

Ecologically Sustainable Development (ESD) involves the effective integration of social, economic and environmental considerations in decision-making processes. In NSW, the concept has been incorporated into legislation including the EP&A Act, the EP&A Regulation and the *Protection of the Environment Administration Act 1991* (NSW).

The Project has considered and addressed the principles of Ecologically Sustainable Development (ESD), which involves the effective integration of social, economic and environmental considerations in decision-making processes. With reference to the Panorama BESS:

- The precautionary principle has been adopted in the assessment of impact; all potential impacts have been considered and mitigated commensurate with risk. Where uncertainty exists, measures have been included to address the uncertainty. For example, a 'worst case' impact assessment has been undertaken to account for the uncertainty in the final impact footprint.
- Potential impacts have been assessed as likely to be localised and reversable and would not diminish the options regarding land and resource uses and nature conservation available to future generations. Importantly, the Project provides additional renewable energy that contributes to minimising the risk of climate change to current and future generations by reducing the carbon

emissions produced in comparison to alternative fossil fuel electricity generation options. Opportunities to improve the soil health and landscape character have been identified.

- The Project would be decommissioned at the end of its operational life, removing all above ground infrastructure, and the land use capability would be restored land use to its pre-existing use.
- The value of the environment is made clear in the Project's protection of land capability, soil and hydrology and their broader contribution to the catchment and catchment processes. The long-term impacts have been considered and the Project commitments ensure that natural resource use and pollution risks have been fully assessed and costs would be solely borne by the Applicant.

6.3. Overall justification

The objectives of the Panorama BESS are to:

- Increase local employment and investment opportunities during construction;
- Add significant benefits to the NSW electricity grid because it allows for the dispatch of energy in accordance with market demand to assist in load leveling and grid support to balance the natural fluctuations in electricity demand throughout the day and reduce congestion on the local grid;
- Play an important role in providing stability to the NSW energy network by charging up during the day when renewable energy generation is high and then providing that power back to the grid at night to support high demand; and
- The BESS is located along a major transmission route which is in line with the Federal Government's direction to improve the affordability and security of the national energy market while also delivering on international climate commitments.

These objectives are considered achievable.

The key community values and concerns, the Project's response to these matters are summarised below. The broader policy context of the Project and the Project's ability to deliver strategic benefits in this context are also provided. These demonstrate a Project which is:

- Responsive to local matters
- Significant in terms of local economic benefits
- Important in the renewable energy transition

6.3.1. Community values and concerns

As part of the EIS, engagement with community stakeholder was undertaken to understand their current values and concerns in relation to the Project. Key concerns raised by near neighbours throughout the engagement process included:

- Potential for noise and vibration impacts
- Potential traffic and access impacts
- Potential impacts to land value (saleability)
- Concerns around fire risk / safety
- Potential impacts to visual amenity
- Potential impacts to surrounding land, soil and water.

It is clear from the engagement undertaken with the community that there is concern about how the Project could impact on the values of this area. The Panorama BESS Project responses to community issues have helped shape the Project's benefits as set out below.

6.3.2. Project response

The Panorama BESS Project has sought to differentiate itself as a BESS Project of appropriate scale, that can be supported by the community. By the EIS stage, several iterations of the Project design had been worked through to minimise impacts and reflect local values. This was led by selecting the site and design of the BESS facility through:

- Appropriate zoning of land to facilitate development consent for a BESS
- Availability of existing access to the site via an establish road network
- Proximity to the existing Transgrid substation, to minimise impacts of easements
- Selection of a construction location that would avoid and/or minimise impacts to high quality native vegetation and protected fauna
- An area that would not result in, or be subject to, potential flood impacts; and
- Minimising impacts to surrounding privately or publicly owned land and residential dwellings due to noise and visual amenity concerns.

Furthermore, the Project has addressed concerns raised in this Submissions Report (NGH, Response to Submissions Report, 2025a) by updating and strengthening the commitments of the Project, pending approval. The updated mitigation measures are included as Appendix B of this report, with the proposed changes to the Project detailed in the Amendment Report (NGH, 2025b).

6.4. Scale and nature of impacts

Considering all stages of development, construction, operation and decommissioning, BESS development can be undertaken with limited impacts on the soils and pastures they rest on.

- The majority of soil disturbance required will be for establishing access tracks as well as excavating footings for the substation, BESS and operational buildings. The overall Development Footprint is less than 5ha.
- The remaining areas will retain as cropping pasture land and would be utilised as seen fit by the landowner.
- In decommissioning, all above ground infrastructure would be removed and most will be repurposed, reused or recycled. The areas of disturbance will be rehabilitated to ensure the site is returned to its predevelopment soil capability or better.
- Adverse cumulative impacts are assessed as negligible. There is potential for a net socio-economic benefit, due to due to Project commitments to local employment, and the benefits from sales of local goods and services impacts and increased employment and skills, primarily during construction of the BESS

The Project would provide a meaningful contribution to the electricity network by firming the grid and supplying electricity during peak periods of high demand.

6.5. Compliance and monitoring

The recommendations of the assessments outlined above have been captured in a consolidated set of updated mitigation commitments (Appendix B) which constitute the Project's commitment to developing a best practice BESS.

Pending approval, environmental protection and management measures would be implemented via an environmental management framework, including construction, operational and decommissioning environmental management plans (EMPs). These plans would be prepared sequentially, prior to each stage of works.

Key EMPs identified in this EIS, and which would be prepared in consultation with relevant stakeholders, include:

Table 6-1 Specific management plans required for the Panorama BESS Project

Management plan	Project stage
Biodiversity Management Plan	Construction
Cultural Heritage Management Plan	During construction - ongoing
Rehabilitation and Decommissioning Management Plan	Decommissioning
Soil and Water Management Plan	Construction
Pest and Weed Management Plan	Prior to construction and decommissioning
Groundcover Management Plan	Operation
Noise Management Plan	Construction
Community and Stakeholder Engagement Strategy update	Prior to construction
Industry Participation Plan	Prior to construction
Community Benefit Sharing comprising a: • Community Benefit Fund • Neighbouring Benefit Fund	Prior to construction
Traffic Management Plan	Construction
Bushfire Emergency Management and Operations Plan	All stages
Fire Management Plan	All stages

Management plan	Project stage
Emergency Response Plan	All stages
Fire Safety Plan.	All stages
Waste Management Plan	All stages

The management plans would each include performance indicators, timeframes, implementation and reporting responsibilities, communications protocols, a monitoring program, auditing and review arrangements, emergency responses, induction and training and complaint/dispute resolution procedures. Adaptive management would be used to ensure that improvements are made in response to the outcomes being reported. The plans would incorporate all of the specific protocols and mitigation measures contained in this EIS and any additional applicable requirements from the DPHI's Conditions of Consent. They would be submitted to DPHI for endorsement prior to commencement of works. To not fulfil the requirement of these plans would constitute a breach of the Project's consent.

In addition to the Project specific management plans, in line with other State Significant Development consents, it is expected that the DPHI would condition the following in relation to this Project:

- Detailed plans of the final layout, showing comparison to the approved layout, prior to commencing construction.
- Incident and non-compliance notification requirements.
- Independent environmental audits.

6.6. Evaluation of the Project

The environmental and socio-economic impacts of the Project demonstrates that the Project has generally low-level impacts, uncertainty has been addressed and the assessment has cited appropriate guidance in the assessment and management of impacts identified.

The Project is considered to comply with the principles of Ecologically Sustainable Development as follows:

- The precautionary principle has been adopted in the assessment of impact; all potential impacts have been considered and mitigated commensurate with risk. Where uncertainty exists, measures have been included to address the uncertainty. For example, a 'worst case' impact assessment has been undertaken to account for the uncertainty in the final impact footprint.
- Potential impacts have been assessed as likely to be localised and reversable and would not diminish the options regarding land and resource uses and nature conservation available to future generations. Importantly, the Project provides additional renewable energy that contributes to minimising the risk of climate change to current and future generations by reducing the carbon emissions produced in comparison to alternative fossil fuel electricity generation options. Opportunities to improve the soil health and landscape character have been identified.
- The Project would be decommissioned at the end of its operational life, removing all above ground infrastructure and all infrastructure to a maximum depth of 500mm below ground level. Rehabilitation targets set in relation to site soil surveys will ensure the site is returned to its existing (or better) land capability for future generations.

The value of the environment is made clear in the Project's commitment to the site's important social and environmental features**.** The long-term impacts have been considered and the project commitments ensure that natural resource use and pollution risks have been fully assessed and costs would be solely borne by the Applicant.

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